D ALMNC

Fortieth Year of Publication.

FARMERS' ALMANAC

AND EPHEMERIS OF THE MOTIONS OF THE SUN AND MOON, THE TRUE PLACES AND ASPECTS OF THE PLANETS, RISING AND SETTING OF THE SUN, AND THE RISING, SETTING, AND SOUTHING OF THE MOON,

FOR THE YEAR OF OUR LORD

1858.

BEING THE SECOND AFTER BISSEXTILE, OR LEAP YEAR.

And (until July 4th) the 82d Year of American Independence.

Containing, also, the Conjunctions, Eclipses, Judgment of the Weather,
Rising and Setting of the Planets, Length of Days and Nights,
Beginning of Daylight, Time of High Water, &c., &c.,
Agricultural Remarks, Valuable Tables,
Anecdotes, Recipes and Miscellany.

BY SAMUEL HART WRIGHT,

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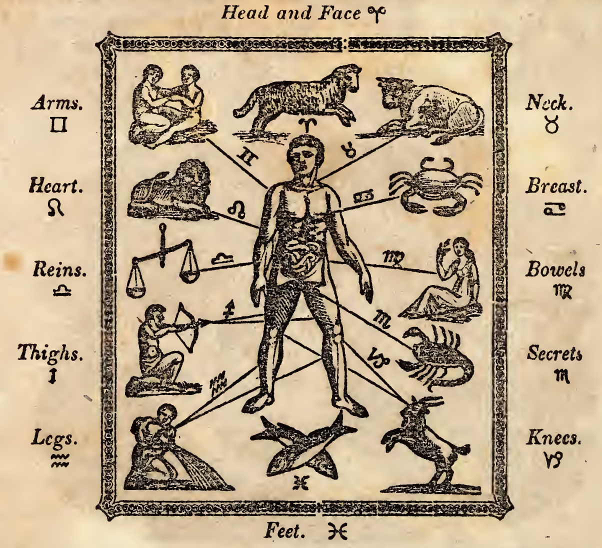
THE ANATOMY OF MAN'S BODY

AS GOVERNED BY THE

TWELVE CONSTELLATIONS ACCORDING TO ANCIENT ASTROLOGY.



To know where the sign is, first find the day of the month in the calendar page, and against the day in the sixth column, you have the sign or place of the moon; then find the sign here; and it will give you the part of the body it is supposed to govern. The idea that the Moon's Place or the signs, have any effect on the human body ought not to be believed.

THE TWELVE SIGNS OF THE ZODIAC.

SPRING SIGNS.

1. ♈ *Aries*, or Ram.
2. ♉ *Taurus*, or Bull.
3. ♊ *Gemini*, or Twins.

SUMMER SIGNS.

4. ♋ *Cancer*, or Crab fish.
5. ♌ *Leo*, or Lion.
6. ♍ *Virgo*, or Virgin.

AUTUMN SIGNS.

7. ♎ *Libra*, or Balance.
8. ♏ *Scorpio*, or Scorpion.
9. ♐ *Sagittarius*, or Bowman.

WINTER SIGNS.

10. ♑ *Capricornus*, or Goat.
11. ♒ *Aquarius*, or Waterman.
12. ♓ *Pisces*, or Fishes.

The first six are called Northern Signs, and the other six Southern Signs.

EXPLANATION OF THE SIGNS USED IN THIS ALMANAC.

● New Moon, and Moon generally. ☽ First Quarter. ○ Full Moon. ☾ Last Quarter. ☊ Moon's ascending Node, or Dragon's Head. ☋ Moon's descending Node, or Dragon's Tail. ● In Apogee—farthest from Earth. ● In Perigee—nearest to the Earth. ● Highest—Moon farthest North. ● Lowest—Moon farthest South. ♄ Saturn. ♀ Venus. ☌ Near together. ♃ Jupiter. ☿ Mercury. □ 90° apart, ☍ Opposition or 180° apart, ♂ Mars, 7* Stars, ☉ Sun, ♅ Herschel.

THE WEATHER.

It is but just to state to the public, that *they* know as much about the weather for the coming year as we do. No Mathematician or Astronomer, however able in his profession, can possibly "*cipher out*" the weather. When such predictions are seen in Almanacs, they should be regarded as more guess work, entitled to no confidence, and as likely to fail as to be true.

CALCULATIONS FOR

An Almanac for the Year of our Lord, **1858**, (being the second after Bissextile, and until the 4th of July, the 82d year of American Independence.) Adapted to the Horizon and Meridian of New York.—By Samuel H. Wright, Dundee, Yates County, New York.

CHRONOLOGICAL CYCLES.

Dominical Letter, - - - - - - - -	C.
Golden Number, or Lunar Cyle, - - - - - -	16.
Epact, (Moon's age,) January 1st, - - - -	15.
Solar Cycle, - - - - - - - -	19.
Roman Indiction, - - - - - - -	1.
Julian Period, - - - - - - - -	6571.

MOVEABLE FEASTS.

Easter Sunday, - - - - - - -	April	4.
Rogation Sunday, - - - - - -	May	9.
Ascension Day, - - - - - - -	May	13.
Pentecost, - - - - - - -	May	23.
Trinity Sunday, - - - - - - -	May	30.
Advent Sunday, - - - - - - -	Nov.	28.

EQUINOXES AND SOLSTICES.

			D.	H.	M.	
Vernal Equinox,	(Beginning of Spring,)	March,	20	4	40	EV.
Summer Solstice,	(" Summer,)	June	21	1	17	EV.
Autumnal Equinox,	(" Autumn,)	Sept.	23	3	29	M.
Winter Solstice,	(" Winter,)	Dec.	21	9	16	EV.

CUSTOMARY NOTES.

VENUS will be the Morning Star until February 28th, then Evening Star until December 13th. MARS will be Morning Star until May 15th, then Evening Star the rest of the year. JUPITER will be Evening Star until May 19th, then Morning Star until December 8th. SATURN will be Morning Star until January 15th, then Evening Star until July 25th, then Morning Star the rest of the year.

MERCURY will be visible in the west soon after sunset about April 17th, August 15th, and December 10th; also in the east before sunrise, about February 10th, June 10th, and October 3d.

ECLIPSES FOR 1858.

There will be four Eclipses this year, two of the Sun, and two of the Moon, as follows:

I. A Partial Eclipse of the Moon, February 27th, in the evening. It will be visible in the eastern part of the United States. *The Moon will rise at 5 o'clock, 45 m., with the Eclipse upon it, on the northern limb.* Its size varies from a mere contact with the shadow, to nearly four digits, according as the place of observation is west, as far as Michigan in the north, and Savanah in the south; or east in Maine, and New Brunswick. It ends at New York at 6 o'clock 21m.; Utica, 6h. 17m.; Rochester, 6h. 6m.; Buffalo, 6h. 2m.

II. An Annular Eclipse of the Sun, March 15th, in the morning. In the United States this will be only a *partial* Eclipse on the southern limb, and as such, will be visible, *east* of Wisconsin, Illinois, and Mississippi. *The sun will rise with about five digits eclipsed.* It ends at New York at 7 o'clock, 31m. in the morning; at Cincinnati at 6h. 43m.

III. A Partial Eclipse of the Moon, August 24th, in the morning. Invisible in the United States, except on the Pacific coast.

IV. A Total Eclipse of the Sun, September 7th. Invisible in the United States, except a contact of limbs in at the time sunrise in Florida, Louisiana and Texas.

NEW TIDE TABLE.

☞ The Tides given in the Calendar pages are for the Port of New York.

In the last column but one of the Calendar pages, you have the time the Moon is South, and by adding thereto the hours and minutes in the following table, you will have the time of High Water at all the places named below; also the rise of water in feet.

	h.	m.	ft.		h.	m.	ft.		h.	m.	ft.
Albany, N. Y.	3	30	1	Egg Harbor, Gt.	9	34	5	*Montauk Point,*	8	10	2.6
Amboy, N. J.,	8	15	5	Egg Harbor, Litt.	10	3	5	Mount Desert,	11	2	25 9
Baltimore,	6	33	1.3	Elizabeth Point,	8	57	5	*Nantucket,*	12	24	3 8
Bay of Fundy,	12	00	60	Fairfield, Conn.,	10	58	6	Narrows, N. Y.,	8	2	6.
Blue Hill Bay,	11	00	12	Guildford, Conn.,	10	28	5	*New Bedford,*	7	57	3.9
Boston,	11	27	10.6	Halifax, N. S.,	7	30	9	*New Haven,*	11	16	5.0
Bridgeport, Ct.,	11	11	6.5	Hampton, N. H.,	11	15	12	*New Lotdon,*	9	28	2.1
Brunswick, N.J.,	9	5	5	Hampton Roads,	8	37	5	*Newport,*	7	45	3.
Campo Bello,	11	00	25	Hartford, Conn.,	9	25		*New York,*	8	13	3.8
Cape Ann,	11	30	11	Hell Gate,	9	35	6	Norwalk, Conn.,	10	54	
Cape Cod,	11	30	6	Huntington, L. I.,	11	30	5	Norwich,	10	56	
Cape Fear,	7	19	4.5	Islip, L. I.,	8	6	6	*Philadelphia,*	1	18	6.0
Cape Hatteras,	9	1	5.	Jamaica Bay,	8	0	5	*Portland,*	11	25	8.8
Cape Henlopen,	5	45	5	Kennebunk, Me.,	11	15	10	*Portsm'th N.H.,*	11	23	8.6
Cape Henry,	7	51	6	Kingston, N. Y.,	2	30	2	Providence,	8	25	5
Castine, Me.,	11	00	12	Lubec,	11	30	26	Sag Harbor,	9	52	
Charleston,	7	13	5.3	Marblehead,	11	30	10	*Sandy Hook,*	7	29	4.8
Eastport, Me.,	11	30	15	Martha's Vineyard,	7	37		St. John's,	12	00	30

The actual rise of the Tides depends on the strength and direction of the Wind, and it not unfrequently happens that a Tide which would, independently of these, have been small, is higher than another, otherwise much greater. But when a Tide which arrives when the Sun and Moon are in a favorable position for producing a great elevation, is still further increased by a very strong wind, the rise of the water will be uncommonly great, sufficient, perhaps, to cause damage.

The Table above, is corrected from the Official Tide Table, published by A. D. Bache, Superintendent United States Coast Survey. But only those Ports, or places indicated by *italics* are thus corrected. The others remain as they have been for a long time, and are supposed to be nearly correct

NOTE.—The calculations of this Almanac have been made exclusively for it. The Sun's Rising and Setting are adapted to *apparent time*, this being most in use.—All the other tables are in *clock time*. The column of *Moon's Place* shows the Signs of the Zodiac or Constellation of Stars in which the Moon is situated at noon.

Stereotyped by Vincent Dill, Nos. 29 & 31 Beekman Street, N. Y

1. JANUARY. Begins on Friday, has 31 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	6	7	51	E.
New Moon,	15	0	36	M.
First Quarter,	22	0	1	E.
Full Moon,	29	4	16	M.

PROB. 1.—A ship runs S. E. 40 miles, thence N. E. 28 miles, thence S. W. by W. 52 miles, thence N. W. by W. 30 miles, thence S. S. E. 36 miles, and thence S. E. by E. 58 miles. What is her course, and distance? *Ans.*—Course, S. 25° 59′ E. Distance, 95.87 miles.

PROB. 2.—What is the sum of n terms of the series, 2, 6, 12, 20, 30, 42, 56, 72, 90, &c.? *Ans.* $\frac{1}{3}(n^3+3n^2+2n.)$

Days of Mon.	Day of Week.	**Phenomena, Chronology, etc.**	☉ Sun rises.		☉ Sun sets.		☉ Sun's dec. S.		Moon's place.	☽ Moon rises.		☽ Moon south.		High water.	
			H.	M.	H.	M.	°	′		H.	M.	H.	M.	H.	M.
1	Fri	Circumcision. *Cold*	7	26	4	34	23	0	♋	6	56	1	28	9	38
2	Sat	Sun slow, 4 25.	7	25	4	35	22	55	♋	8	11	2	26	10	26
3	C	Bt. Princeton 1777.	7	25	4	35	22	49	♌	9	21	3	17	11	11
4	Mon	☿ in ♌. *and sudden*	7	24	4	36	22	43	♌	10	27	4	3	11	56
5	Tue	☿ stationary.	7	24	4	36	22	36	♌	11	31	4	47	ev.	40
6	Wed	Epiphany. *changes.*	7	23	4	37	22	29	♍	morn.		5	28	1	24
7	Thu	Sun slow, 6 40.	7	23	4	37	22	21	♍		33	6	10	2	9
8	Fri	☽ ☌ ♂ 2 26 mor.	7	22	4	38	22	13	♎	1	36	6	52	3	3
9	Sat	8th, ☿ in Perihe.	7	22	4	38	22	5	♎	2	39	7	36	3	53
10	C	☽ in apo. *Snow.*	7	21	4	39	21	56	♎	3	41	8	22	4	49
11	Mon	Sun slow, 8 19.	7	21	4	39	21	47	♏	4	42	9	11	5	44
12	Tue	☽ lowest. *Signs*	7	20	4	40	21	37	♏	5	41	10	2	6	37
13	Wed	Lexington bu. 1840	7	19	4	41	21	27	♐	6	34	10	55	7	26
14	Thu	☽ ☌ ♀ 0 22 mor.	7	18	4	42	21	16	♐	sets.		11	47	8	11
15	Fri	♃ ☍ ☉. ☿ Inf. ☌ ☉.	7	18	4	42	21	5	♐	5	25	ev.	38	8	56
16	Sat	Gibbon died '94.	7	17	4	43	20	54	♑	6	32	1	26	9	36
17	C	Sun slo. 10 29. *of a*	7	16	4	44	20	42	♑	7	40	2	13	10	18
18	Mon	Ba. Kingsbridge '77	7	15	4	45	20	30	♒	8	45	2	57	10	52
19	Tue	♀ ☌ ☿ 3 49 morn.	7	14	4	46	20	17	♒	9	53	3	41	11	33
20	Wed	Peace decla. 1783.	7	13	4	47	20	5	♓	11	1	4	26	morn.	
21	Thu	Louis XVI. be. '93.	7	13	4	47	19	51	♓	morn.		5	12		18
22	Fri	☽ ☌ ♃ 10 32 ev.	7	12	4	48	19	38	♓		11	6	2	1	6
23	Sat	S. slo. 12 13. *thaw.*	7	11	4	49	19	24	♈	1	16	6	56	2	1
24	C	Ba. l. Canada 1847.	7	10	4	50	19	9	♈	2	46	7	55	3	11
25	Mon	☽ high. *Windy.*	7	9	4	51	18	54	♉	3	58	8	59	4	18
26	Tue	☿ stat. ☽ in per.	7	8	4	52	18	39	♉	5	10	10	4	5	31
27	Wed	♃ □ ☉. *Colder.*	7	7	4	53	18	24	♊	6	12	11	8	6	40
28	Thu	☽ ☌ ♃ 1 36 morn.	7	6	4	54	18	8	♊	rises.		morn.		7	40
29	Fri	Dr. Burdell kil. 1857.	7	5	4	55	17	52	♋	5	43		8	8	28
30	Sat	S. C. Walker, d. 1857.	7	4	4	56	17	36	♋	6	59	1	3	9	18
31	C	Septuages. ♂ □ ☉.	7	2	4	58	17	19	♌	8	9	1	52	9	58

ieve choked cattle, fire a gun under
for the excessive fright will clear
a cht.
tha

2. FEBRUARY. Begins on Monday, has 28 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	5	4	21	E.
New Moon,	13	5	17	E.
First Quarter,	20	8	3	E.
Full Moon,	27	5	9	E.

PROB. 3.—If 12 oxen eat $3\frac{1}{3}$ acres of grain in 4 weeks, and 21 oxen eat 10 acres in 9 weeks; how many oxen would eat 24 acres in 18 weeks, the grass growing uniformly?
Ans. 36 oxen.

PROB. 4.—If a man 5 feet high, weighs 150 lbs., what will a man of similar proportions wheigh who is 6 feet high?
Ans. 259.2 lbs.

PROB. 5.—What must be the length of a

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises. H.	M.	☉ Sun sets. H.	M.	☉ Sun's dec. S. °	′	Moon's place	● Moon. rises. H.	M.	● Moon south. H.	M.	High water. H.	M.
1	Mon	Sun slow, 13m. 54s.	7	1	4	59	17	2	♌	9	14	2	38	10	38
2	Tue	♅ stat. *Stormy*	7	0	5	0	16	45	♍	10	18	3	21	11	13
3	Wed	Geo. Crabb, d. 1832.	6	59	5	1	16	27	♍	11	22	4	4	11	56
4	Thu	*and cold.*	6	58	5	2	16	9	♍	morn.		4	46	ev.	39
5	Fri	● ☌ ♂ 2 51 ev.	6	57	5	3	15	51	♎		25	5	30	1	26
6	Sat	Sun slow, 14 22.	6	56	5	4	15	53	♎	1	30	6	15	2	15
7	C	Sexages. ● apo.	6	54	5	6	15	14	♏	2	34	7	4	3	15
8	Mon	☿ gr. elong. west.	6	53	5	7	14	55	♏	3	32	7	54	4	17
9	Tue	♀ in aphe. ● low.	6	52	5	8	14	36	♏	4	26	8	46	5	15
10	Wed	*Mild.*	6	51	5	9	14	16	♐	5	16	9	38	6	13
11	Thu	☿ in ☊. ● ☌ ☿ 6 51e.	6	50	5	10	13	57	♐	5	55	10	30	7	4
12	Fri	Sun slow, 14 30.	6	48	5	12	13	37	♑	6	30	11	20	7	46
13	Sat	● ☌ ♀ 9 6 mor.	6	47	5	13	13	17	♑	sets.		ev.	8	8	28
14	C	Shrove Sunday.	6	46	5	14	12	56	♒	6	35		54	9	9
15	Mon	● ☌ Neptu. *Look*	6	44	5	16	12	36	♒	7	43	1	39	9	49
16	Tue	Dr. Kane, d. 1857.	6	43	5	17	12	15	♒	8	51	2	24	10	24
17	Wed	Ash Wed. *for a*	6	42	5	18	11	54	♓	10	2	3	10	11	5
18	Thu	Sun Slow, 14 11.	6	41	5	19	11	33	♓	11	16	3	59	11	51
19	Fri	● ☌ ♃ 9 17 mor.	6	39	5	21	11	12	♈	morn.		4	51	morn.	
20	Sat	● ☌ ♅ 10 46 mor.	6	38	5	22	10	50	♈		31	5	48		55
21	C	1st. Sund. in Lent.	6	37	5	23	10	28	♉	1	45	6	49	1	47
22	Mon	● in per. *thaw.*	6	35	5	25	10	7	♉	2	58	7	52	3	0
23	Tue	● high. *Snow.*	6	34	5	26	9	45	♊	4	3	8	55	4	16
24	Wed	● ☌ ♃ 6 58 mor.	6	33	5	27	9	22	♊	4	56	9	55	5	27
25	Thu	Bat. Trenton, 1776.	6	31	5	29	9	0	♋	5	36	10	50	6	30
26	Fri	*Rain soon.*	6	30	5	30	8	38	♋	6	9	11	41	7	21
27	Sat	Moon eclipsed.	6	29	5	31	8	15	♌	rises.		morn.		8	2
28	C	♀ Sup. ☌ ☉. *Fair.*	6	27	5	33	7	53	♌	6	55		28	8	46

Algebraic problem. Given to find x by quadratics; "$x^5+15x^3+45=18$."

3. MARCH. Begins on Monday, has 31 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	7	1	15	E.
New Moon,	15	7	16	M.
First Quarter,	22	2	47	M.
Full Moon,	29	7	12	M.

rope that ties a horse to the outside of a fence of a round field, that will allow him to eat over 1 acre, the rope being ½ as long as the fence?

Ans. 128.99089 feet.

Prob. 6.—The diameter of a round field is 10 chains. If a horse be tied inside to the fence, how long must be his rope, so as to allow him to eat half of the grass?

Ans. 11.58 chains.

Days of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises.		☉ Sun sets.		☉ Sun's dec. S.		Moon's place.	☽ Moon rises.		☽ Moon south.		High water.	
			H.	M.	H.	M.	°	′		H.	M.	H.	M.	H.	M.
1	Mon	Sun slow, 12m. 32s.	6	26	5	34	7	30	♌	8	2	1	12	9	27
2	Tue	Czar Nich. d. 1855.	6	25	5	35	7	7	♍	9	5	1	55	10	2
3	Wed	J. Wesley d. 1691.	6	24	5	36	6	44	♍	10	9	2	38	10	39
4	Thu	Bost. Massacre, '70.	6	22	5	38	6	21	♎	11	14	3	22	11	16
5	Fri	☽ ☌ ♂ 9 25 ev.	6	21	5	39	5	58	♎	morn.		4	8	12	0
6	Sat	Sun slow, 11 26.	6	19	5	41	5	35	♏		17	4	55	ev.	48
7	C	Moon apo. *Colder.*	6	18	5	42	5	11	♏	1	19	5	45	1	42
8	Mon	Moon lowest.	6	17	5	43	4	48	♏	2	17	6	36	2	42
9	Tue	Wire first inv. 1410.	6	15	5	45	4	24	♐	3	9	7	29	3	46
10	Wed	♀ ☌ Nep. 7 46 mor.	6	14	5	46	4	1	♐	3	51	8	20	4	46
11	Thu	Sun slow, 10 9. *A*	6	13	5	47	3	37	♑	4	29	9	11	5	44
12	Fri	Gregory, martyr.	6	11	5	49	3	14	♑	4	58	9	59	6	34
13	Sat	♅ discovered 1781.	6	10	5	50	2	50	♑	5	25	10	46	7	20
14	C	☽ ☌ ☿. *freeze up.*	6	9	5	51	2	27	♒	5	49	11	32	7	57
15	Mon	Snn eclipsed.	6	7	5	53	2	3	♒	sets.		ev.	18	8	37
16	Tue	Bowditch d. 1838.	6	6	5	54	1	39	♓	7	48	1	5	9	20
17	Wed	St. Patrick's Day.	6	4	5	56	1	15	♓	9	2	1	54	10	0
18	Thu	☽ ☌ ♃ 11 30 ev.	6	3	5	57	0	52	♈	10	18	2	46	10	46
19	Fri	Calhoun b. 1782.	6	2	5	58	0	28	♈	11	36	3	43	11	35
20	Sat	Spring begins.	6	0	6	0	0	4	♉	morn.		4	43	morn.	
21	C	Moon highest.	5	59	6	1	N.	19	♉		51	5	46		35
22	Mon	Sun slow, 6 58.	5	58	6	2		43	♊	1	56	6	49	1	43
23	Tue	♃ stat. *Stormy.*	5	56	6	4	1	7	♊	2	52	7	48	2	58
24	Wed	Elizabeth d. 1603.	5	55	6	5	1	30	♋	3	37	8	44	4	11
25	Thu	☿ sup. ☌ ☉. *High*	5	54	6	6	1	54	♋	4	10	9	35	5	12
26	Fri	An. B. V. Mary.	5	52	6	8	2	17	♋	4	39	10	22	6	9
27	Sat	Sun slow, 5 26.	5	51	6	9	2	41	♌	5	1	11	6	6	56
28	C	Palm Sunday.	5	50	6	10	3	4	♌	rises.		11	50	7	38
29	Mon	Swedenbourg died.	5	48	6	12	3	28	♍	6	50	morn.		8	11
30	Tue	Peace Treat. Eu. 1856.	5	47	6	13	3	51	♍	7	55		32	8	50
31	Wed	Calhoun d. 1850.	5	46	6	14	4	14	♎	8	59	1	16	9	30

4. APRIL. Begins on Thursday, has 30 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	6	8	47	M.
New Moon,	13	6	19	E.
First Quarter,	20	9	30	M.
Full Moon,	27	10	0	E.

PROB. 7.—How large a circle in diameter, can be drawn in the quadrant of a circle 30 inches in diameter?

Ans. 11.426 inches.

PROB. 8.—What is the sum of n terms of the series, $1^2+2^2+3^2+4^2$, &c.?

Ans. $\frac{1}{6}n\,(2n^2+3n+1.)$

PROB. 9.—What is sum of n terms of the series, $1^4+2^4+3^4+4^4+5^4$, &c.?

Ans. $n\,(6n^4+15n^3+10n^2-1)\div30$.

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises. H. M.	☉ Sun sets. H. M.	☉ Sun's dec. N. ° ′	Moon's place	● Moon. rises. H. M.	◐ Moon. south. H. M.	High water. H. M.
1	Thu	2d, ☿ ☌ ♀ 7 8 ev.	5 44	6 16	4 37	♋	10 3	2 1	10 7
2	Fri	Good Friday.	5 43	6 17	5 0	♋	11 8	2 48	10 47
3	Sat	◍ apo. *Showers,*	5 42	6 18	5 23	♏	morn.	3 37	11 29
4	C	Easter Sunday	5 41	6 19	5 46	♏	6	4 28	ev. 20
5	Mon	Sun slow, 2m. 41s.	5 40	6 20	6 9	♐	59	5 19	1 13
6	Tue	☿ in perihe. *and*	5 39	6 21	6 32	♐	1 47	6 11	2 10
7	Wed	Dart. Massacre, 1815.	5 38	6 22	6 54	♐	2 25	7 1	3 12
8	Thu	Bat. Thassus 46.	5 36	6 24	7 17	♑	2 59	7 49	4 12
9	Fri	Peace with Eng. '84.	5 35	6 25	7 39	♑	3 23	8 34	5 1
10	Sat	☿ stat. *high winds.*	5 34	6 26	8 1	♒	3 50	9 22	5 56
11	C	Low Sunday.	5 32	6 28	8 24	♒	4 12	10 8	6 43
12	Mon	Henry Clay b. '77.	5 31	6 29	8 45	♒	4 35	10 54	7 25
13	Tue	Christo. Pitt d. '48.	5 30	6 30	9 7	♓	sets.	11 43	8 7
14	Wed	◍ ☌ ♀ 5 14 ev.	5 28	6 32	9 29	♓	7 58	ev. 35	8 53
15	Thu	◍ ☌ ♃ 4 54 ev.	5 27	6 33	9 50	♈	9 18	1 31	9 42
16	Fri	Shakspeare b. 1564.	5 26	6 34	10 12	♈	10 36	2 33	10 33
17	Sat	Moon highest.	5 25	6 35	10 33	♉	11 47	3 37	11 29
18	C	2d Sun aft. Easter.	5 23	6 37	10 54	♉	morn.	4 41	morn.
19	Mon	◍ ☌ ♃ 6 29 ev.	5 22	6 38	11 15	♊	49	5 43	34
20	Tue	☿ gr. elong. 7 47 mo.	5 21	6 39	11 35	♊	1 36	6 40	1 40
21	Wed	Sun fast, 1 24.	5 19	6 41	11 56	♋	2 13	7 32	2 46
22	Thu	Bt. Cerro Gordo 1847.	5 18	6 42	12 16	♋	2 42	8 20	3 49
23	Fri	St. George. *Thunder*	5 17	6 43	12 36	♌	3 7	9 4	4 46
24	Sat	Shakspeare d. 1616.	5 16	6 44	12 56	♌	3 29	9 47	5 37
25	C	☿ ☌ ♃ 8 22 morn.	5 15	6 45	13 15	♍	3 48	10 29	6 21
26	Mon	Sun Fast, 2 21.	5 13	6 47	13 35	♍	4 9	11 12	7 3
27	Tue	Lit. York ta. 1813.	5 12	6 48	13 54	♍	rises.	11 56	7 42
28	Wed	29th, ♀ ☌ ☿ 6 21 ev.	5 11	6 49	14 13	♎	7 52	morn.	8 16
29	Thu	♀ ☌ ♃ 7 32 mo.	5 10	6 50	14 32	♎	8 54	42	9 0
30	Fri	29th, ◍ ☌ ♀ 8 28 ev.	5 8	6 52	14 50	♏	9 56	1 30	9 40

5. MAY. Begins on Saturday, has 31 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	6	1	44	M.
New Moon,	13	2	52	M.
First Quarter,	19	5	24	E.
Full Moon,	27	1	9	E.

PROB. 10.—How far is a globe from the eye, when it subtends an angle of 1 second, its diameter being 1 foot?

Ans. 1718.8735 feet.

PROB. 11.—If a ship sails 10 nautical miles per hour, on a N. N. E. course, from Lat. 59° 3′ N., when will she get to the *pole*, and how far sail?

Ans. In 201 hours, she sails 2010 nautical miles.

Days of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises.		☉ Sun sets.		☉ Sun's dec. N.		Moon's place.	● Moon rises.		● Moon south.		High water.	
			H.	M.	H.	M.	°	′		H.	M.	H.	M.	H.	M.
1	Sat	◍ in apo. and low.	5	6	6	54	15	8	♏	10	52	2	21	10	22
2	C	☿ ☌ ♃ 3 30 morn.	5	5	6	55	15	26	♐	11	41	3	12	11	6
3	Mon	♂ in ☋. *Cool winds.*	5	4	6	56	15	44	♐	morn.		4	3	11	56
4	Tue	Sun fast, 3m. 25s.	5	3	6	57	16	1	♐		22	4	54	ev.	47
5	Wed	Bat. Oswego, 1814.	5	2	6	58	16	19	♑		58	5	42	1	39
6	Thu	Bat. Prague, 1757.	5	1	6	59	16	36	♑	1	26	6	28	2	34
7	Fri	Gen. Worth d. 1849.	5	0	7	0	16	52	♒	1	51	7	13	3	26
8	Sat	Palo Alto bat. 1846	4	59	7	1	17	9	♒	2	13	7	58	4	21
9	C	Rogation Sunday.	4	57	7	3	17	25	♒	2	36	8	43	5	11
10	Mon	☿ in ☋. *Dry and*	4	56	7	4	17	41	♓	2	59	9	29	6	4
11	Tue	☿ in Inf. ☌ Sun.	4	55	7	5	17	56	♓	3	23	10	20	7	54
12	Wed	Vaccina. dis. 1796.	4	54	7	6	18	11	♈	sets.		11	14	7	42
13	Thu	Ascension Day.	4	53	7	7	18	26	♈	8	11	ev.	15	8	34
14	Fri	◍ ☌ ♀ 0 6 e. *warm.*	4	52	7	8	18	41	♉	9	28	1	20	9	32
15	Sat	Puebla capt'd 1847.	4	52	7	8	18	55	♉	10	37	2	27	10	27
16	C	Mrs. Hemans d. 1835	4	51	7	9	19	9	♊	11	31	3	32	11	24
17	Mon	John Jay, d. 1829.	4	50	7	10	19	23	♊	morn.		4	33	morn.	
18	Tue	Sun fast 3 51. *Fine*	4	49	7	11	19	36	♋		13	5	28		25
19	Wed	♃ ☌ Sun. *showers.*	4	48	7	12	19	49	♋		45	6	18	1	24
20	Thu	La Fayette d. 1834.	4	47	7	13	20	2	♌	1	11	7	4	2	20
21	Fri	St. Helena, 1762.	4	46	7	14	20	14	♌	1	34	7	47	3	15
22	Sat	♃ ☌ ♅ 9 17 mor.	4	45	7	15	20	26	♍	1	54	8	29	4	7
23	C	Pentecost. *Growing*	4	45	7	15	20	37	♍	2	16	9	11	4	56
24	Mon	☿ station. *weather.*	4	44	7	16	20	49	♍	2	37	9	54	5	44
25	Tue	Sun fast, 3 23.	4	43	7	17	20	59	♎	3	0	10	39	6	29
26	Wed	◍ ☌ ♂ 9 19 m. *Dry.*	4	42	7	18	21	10	♎	4	28	11	26	7	13
27	Thu	Venerable Bede.	4	42	7	18	21	20	♏	rises.		morn.		7	51
28	Fri	N. Webster d. 1843.	4	41	7	19	21	30	♏	8	46		16	8	35
29	Sat	◍ in apo. & lowest.	4	40	7	20	21	39	♏	9	38	1	7	9	22
30	C	Trinity Sunday.	4	40	7	20	21	48	♐	10	20	1	58	10	5
31	Mon	Sun fast 2 40. *Hot.*	4	39	7	21	21	57	♐	10	57	2	49	10	45

6. JUNE. Begins on Tuesday, has 30 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	4	3	25	E.
New Moon,	11	9	50	M.
First Quarter,	18	3	18	M.
Full Moon,	26	4	17	M.

PROB. 12.—What is the sum of *n* terms of the series, $1^5+2^5+3^5$, &c.?

Ans. $\frac{1}{12}n^2(2n^4+6n^3+5n^2-1)$

PROB. 13.—A lot of soldiers can be formed into an exact solid square, and by taking away 5, they can be formed into 61 squares. How many were there?

Ans. 205209 soldiers.

PROB. 14.—All the wheels of a carriage are 6 feet in diameter; and the nearest point

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises. H.	M.	☉ Sun sets. H.	M.	☉ Sun's dec.N. °	′	Moon's place	☽ Moon. rises. H.	M.	☽ Moon. south. H.	M.	High water. H.	M.
1	Tue	♀ in periheli. *Fair*	4	38	7	22	22	5	♑	11	26	3	38	11	30
2	Wed	Kentucky ad. 1796.	4	38	7	22	22	13	♑	11	53	4	24	ev.	16
3	Thu	Corpus Christi. *and*	4	37	7	23	22	51	♑	morn.		5	9	1	2
4	Fri	Sun fast 2 m. 3 s.	4	37	7	23	22	28	♒		15	5	52	1	51
5	Sat	Putnam born 1718.	4	36	7	24	22	35	♒		36	6	35	2	40
6	C	Gen. Gaines d. 1849	4	36	7	24	22	41	♓		59	7	20	3	36
7	Mon	☿ gr. elong. *bland.*	4	35	7	25	22	47	♓	1	22	8	7	4	30
8	Tue	Jackson d. 1845.	4	35	7	25	22	53	♈	1	47	8	58	5	30
9	Wed	☽ ☌ ☿ 9 51 ev.	4	35	7	25	22	58	♈	2	20	9	54	6	30
10	Thu	☽ ☌ ♃ 9 28 mor.	4	34	7	26	23	2	♉	sets.		10	57	7	28
11	Fri	☽ in peri. *Rain.*	4	34	7	26	23	7	♉	8	14	ev.	4	8	24
12	Sat	13th, ☽ ☌ ♀ 6 13 m.	4	34	7	26	23	11	♊	9	17	1	12	9	26
13	C	☽ ☌ ♃ 6 36 ev.	4	33	7	27	23	14	♊	10	6	2	18	10	21
14	Mon	Sun and clock agree.	4	33	7	27	23	17	♋	10	43	3	17	11	10
15	Tue	J. K. Polk, d. 1849.	4	33	7	27	23	20	♋	11	13	4	11	morn.	
16	Wed	Gr. eclipse ☉ 1806.	4	33	7	27	23	22	♌	11	38	5	0		3
17	Thu	Bat. Bunker Hill 1775.	4	33	7	27	23	24	♌	11	58	5	44		53
18	Fri	Bt. Waterloo, 1815.	4	32	7	28	23	26	♌	morn.		6	27	1	42
19	Sat	☉ slow, 0 58. *Clear.*	4	32	7	28	23	27	♍		19	7	10	2	32
20	C	♀ ☌ ♃ 7 2 mo. *and*	4	32	7	28	23	27	♍		42	7	52	3	22
21	Mon	J. Madison d. 1836.	4	32	7	28	23	28	♎	1	4	8	37	4	15
22	Tue	☽ ☌ ♂ 4 17 morn.	4	32	7	28	23	27	♎	1	23	9	23	5	4
23	Wed	Akenside d. 1772.	5	32	7	28	23	27	♎	2	2	10	12	5	57
24	Thu	♂ station. *warm.*	4	32	7	28	23	26	♏	2	39	11	3	6	47
25	Fri	☽ in ap. and lowest.	4	32	7	28	23	24	♏	rises.		11	54	7	34
26	Sat	Sun slow, 2 28.	4	33	7	27	23	22	♐	8	20	morn.		8	14
27	C	Cholera, N.Y. 1832.	4	33	7	27	23	20	♐	8	58		45	9	3
28	Mon	Monmouth bat. '78.	4	33	7	27	23	18	♐	9	30	1	35	9	45
29	Tue	H. Clay, d. 1852.	4	33	7	27	23	15	♑	9	57	2	22	10	22
30	Wed	Print. in. 1441. *Hot.*	4	33	7	27	23	11	♑	10	19	3	7	11	2

7. JULY. Begins on Thursday, has 31 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	4	1	48	M.
New Moon,	10	4	29	E.
First Quarter,	17	3	43	E.
Full Moon,	25	7	7	E.

between the fore and hind wheels is 3 feet. Axles are 6 feet long. If the wagon be turned so that the *inside* fore wheel, tracks with the *outside* hind wheel, what will be the diameter of the circle they will describe?

Ans. 13½ feet.

Prob. 15.—How much superficial area, is described by one revolution of a millstone, 4 feet in diameter?

Answer reserved.

haying

Days of Mon.	Day of Week.	**Phenomena, Chronology, etc.**	☉ Sun rises. H. M.	☉ Sun sets. H. M.	☉ Sun's dec. N. ° ′	Moon's place.	☽ Moon rises. H. M.	☽ Moon south. H. M.	High water. H. M.
1	Thu	Sun slow, 3m. 28s.	4 34	7 26	23 7	♒	10 42	3 50	11 42
2	Fri	Visita. B. V. Mary.	4 34	7 26	23 3	♒	11 1	4 33	ev. 25
3	Sat	☉ in apo. *Mild and*	4 34	7 26	22 58	♓	11 23	5 15	1 8
4	C	Independence Day.	4 35	7 25	22 53	♓	11 47	6 0	1 59
5	Mon	Bt. Chippewa 1814.	4 35	7 25	22 48	♓	morn.	6 47	2 57
6	Tue	Sun slow 4 22. *cool.*	4 36	7 24	22 42	♈	15	7 40	3 57
7	Wed	8th, ☿ sup. ☌ Sun.	4 36	7 24	22 35	♈	51	8 38	5 5
8	Thu	☽ ☌ ♃ 5 6 mor.	4 37	7 23	22 29	♉	1 39	9 42	6 16
9	Fri	☽ in per. & highest.	4 37	7 23	22 22	♉	2 39	10 49	7 21
10	Sat	☽ ☌ ☿ 8 28ev. *Look*	4 38	7 22	22 14	♊	sets.	11 56	8 16
11	C	Hamilton shot 1804.	4 38	7 22	22 6	♊	8 37	ev. 59	9 15
12	Mon	Sun slow 5 16. *for*	4 39	7 21	21 58	♋	9 9	1 57	10 3
13	Tue	☽ ☌ ♀ 3 39 morn.	4 39	7 21	21 50	♋	9 38	2 50	10 46
14	Wed	Gag Law passed 1798.	4 40	7 20	21 41	♌	10 0	3 37	11 29
15	Thu	☿ ☌ ♃ 7 20 m. *rain.*	4 41	7 19	21 31	♌	10 22	4 22	morn.
16	Fri	Stony Paint ta. '79.	4 41	7 19	21 22	♍	10 44	5 6	14
17	Sat	Sun slo. 5 48. *Very*	4 42	7 18	21 12	♍	11 5	5 49	59
18	C	Bat. Warsaw, 1656.	4 43	7 17	21 1	♎	11 31	6 34	1 47
19	Mon	☽ ☌ ♂ 6 50 e. *sultry*	4 43	7 17	20 50	♎	morn.	7 20	2 39
20	Tue	J. Playfair d. 1819.	4 44	7 16	20 39	♎	2	8 8	3 37
21	Wed	Sun slow 6 5. *and*	4 45	7 15	20 28	♏	37	8 58	4 31
22	Thu	☽ in apo. & lowest.	4 46	7 14	20 16	♏	1 20	9 50	5 30
23	Fri	Bt. Bridgewater 1814.	4 47	7 13	20 4	♐	2 11	10 41	6 25
24	Sat	Bat. Niagara 1814.	4 47	7 13	19 51	♐	3 8	11 31	7 14
25	C	♃ ☌ ☉ 1 33 mo. *hot.*	4 48	7 12	19 39	♐	rises.	morn.	7 56
26	Mon	Coleridge d. 1834.	4 49	7 11	19 25	♑	8 0	20	8 39
27	Tue	Sun slow 6 11. *Rain*	4 50	7 10	19 12	♑	8 24	1 5	9 21
28	Wed	Wilberforce d. 1833.	4 51	7 9	18 58	♒	8 46	1 50	9 56
29	Thu	Dog Days begin.	4 52	7 8	18 44	♒	9 7	2 32	10 32
30	Fri	Sun slow 6 7. *with*	4 53	7 7	18 30	♒	9 28	3 14	11 9
31	Sat	*strong winds.*	4 54	7 6	18 15	♓	9 51	3 58	11 50

8. AUGUST. Begins on Sunday, has 30 days. 1858.

Moon's Phases.

	D.	H.	M.	
Last Quarter,	2	9	25	M.
New Moon,	8	11	58	E.
First Quarter,	16	6	46	M.
Full Moon,	24	9	16	M.
Last Quarter,	31	3	21	E.

PROB. 16.—When after 4 o'clock will the hands of a clock contain an angle of 100°?
Ans. $\frac{7}{12}$ or 40 minutes past 4 o'clock.

PROB. 17.—The longest diagonal of a cube is *a*. What is the side?
Ans. $\frac{1}{3}a\sqrt{3}$.

PROB. 18.—What is the 0 power of *a*?
Ans. 1.

PROB. 19.—What is the product of an infinitesimal by infinity? *Ans.* 1.

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises. H. M.		☉ Sun sets. H. M.		☉ Sun's dec.N. °	′	Moon's place	☽ Moon. rises. H. M.		☽ Moon. south. H. M.		High water. H. M.	
1	C	Sun slow 6m. 1s.	4	55	7	5	18	0	♓	10	16	4	43	ev.	36
2	Mon	Mehem. Ali. d. 1849	4	56	7	4	17	45	♈	10	48	5	33	1	29
3	Tue	Burr's Trial 1807.	4	57	7	3	17	29	♈	11	29	6	27	2	32
4	Wed	☽ ☌ ♃ 10 1e. *Very*	4	58	7	2	17	13	♉	morn.		7	26	3	43
5	Thu	Moon highest. *hot*	4	59	7	1	16	57	♉		22	8	30	4	57
6	Fri	☿ in ♌. *weather.*	5	0	7	0	16	41	♊	1	27	9	36	6	10
7	Sat	☽ in per. *Signs*	5	1	6	59	16	24	♊	2	42	10	40	7	13
8	C	☽ ☌ ♃ 2 34 mo. *of*	5	2	6	58	16	7	♋	sets.		11	40	8	5
9	Mon	Sun slow 5 14. *rain.*	5	3	6	57	15	50	♋	7	37	ev.	36	8	54
10	Tue	☽ ☌ ☿ 10 48 ev.	5	4	6	56	15	32	♌	8	0	1	26	9	36
11	Wed	Barbadoes des. '831.	5	6	6	54	15	14	♌	8	23	2	13	10	19
12	Thu	☽ ☌ ♀ 3 52 mor.	5	7	6	53	14	56	♍	8	45	2	58	10	53
13	Fri	Oregon a Ter. 1848.	5	8	6	52	14	38	♍	9	8	3	43	11	35
14	Sat	Sun slo. 4 26. *Hot.*	5	9	6	51	14	20	♍	9	34	4	28	morn.	
15	C	Fort Erie ta. 1814.	5	10	6	50	14	1	♎	10	1	5	14		20
16	Mon	☿ in apheli. *Some*	5	11	6	49	13	42	♎	10	36	6	2	1	8
17	Tue	Albany burnt 1848.	5	13	6	47	13	23	♏	11	16	6	52	2	1
18	Wed	☿ gr. elon. E. *wind*	5	14	6	46	13	4	♏	morn.		7	43	3	2
19	Thu	☽ apo. and lowest.	5	15	6	45	12	44	♏		3	8	35	4	3
20	Fri	Ste. Atlantic sunk '852.	5	16	6	44	12	25	♐	1	0	9	26	5	2
21	Sat	Sun slow 2 55. *and*	5	17	6	43	12	5	♐	2	0	10	15	6	0
22	C	Dr. Gall di. 1828.	5	19	6	41	11	45	♑	3	5	11	2	6	50
23	Mon	C. Washington b't '814	5	20	6	40	11	24	♑	rises.		11	47	7	33
24	Tue	☽ eclipsed. *rain.*	5	21	6	39	11	4	♒	6	51	morn.		8	9
25	Wed	Mar. Wash'ton d. 1789.	5	22	6	38	10	43	♒	7	13		30	8	48
26	Thu	♅ □ ☉. *Look for*	5	23	6	37	10	22	♒	7	34	1	13	9	26
27	Fri	Sun slow, 1 19. *a*	5	25	6	35	10	1	♓	7	56	1	57	10	3
28	Sat	J. Wilson d. 1798.	5	26	6	34	9	40	♓	8	21	2	42	10	40
29	C	John Bap. behead.	5	27	6	33	9	19	♈	8	49	3	30	11	22
30	Mon	Dr. Webster hung 1850.	5	29	6	31	8	57	♈	9	28	4	22	ev.	14
31	Tue	☿ station. *drought.*	5	30	6	30	8	36	♉	10	13	5	19	1	14

9. SEPTEMBER. Begins on Wednesday, has 30 days 1858.

Moon's Phases.

	D.	H.	M.	
New Moon,	7	9	19	M.
First Quarter,	15	0	20	M.
Full Moon,	22	10	25	E.
Last Quarter,	29	8	56	E.

PROB. 20.—A person has *a* hours for disposal. How far may he ride *b* miles an hour, and walk back in time, at *c* miles an hour? *Ans.* $abc \div (b+c)$

PROB. 21.—What is the sum of *n* terms of the series 1, 8, 27, 64, &c.? *Ans.* $\frac{1}{4}n^2 (n^2+2n+1)$

PROB. 22.—What must be the inclination of a roof, that the water may run off in the least time possible? *Ans.* 45°.

Day of Mon.	Day of Week.	**Phenomena, Chronology, etc.**	☉ Sun rises. H.	M.	☉ Sun sets. H.	M.	☉ Sun's dec. N. °	′	Moon's place.	☽ Moon. rises. H.	M.	☽ Moon. south. H.	M.	High water. H.	M.
1	Wed	☽ highest. *Some*	5	31	6	29	8	14	♉	11	14	6	20	2	24
2	Thu	Sun fast, 0m. 30s.	5	33	6	27	7	52	♊	morn.		7	24	3	41
3	Fri	☽ perigee. *signs of*	5	34	6	26	7	30	♊		24	8	27	4	54
4	Sat	☽ ☌ ♃ 5 0 even.	5	35	6	25	7	8	♋	1	40	9	27	6	1
5	C	♂ □ Sun. *rain,*	5	36	6	24	6	46	♋	2	59	10	23	6	57
6	Mon	☉ fast, 1 48. *which*	5	38	6	22	6	23	♋	4	15	11	14	7	42
7	Tue	Arkansas ad. U.S. 1836.	5	39	6	21	6	1	♌	sets.		ev.	3	8	23
8	Wed	♅ stationary. *does*	5	40	6	20	5	38	♌	6	48		49	9	5
9	Thu	U.S. first so called '76.	5	42	6	18	5	16	♍	7	10	1	34	9	44
10	Fri	Sun fast, 3 9. *not*	5	43	6	17	4	53	♍	7	33	2	19	10	21
11	Sat	☽ ☌ ♀ 2 53 mo. *come.*	5	44	6	16	4	30	♎	8	1	3	6	11	1
12	C	Balti. bomb. 1814.	5	46	6	14	4	7	♎	8	33	3	54	11	46
13	Mon	♃ □ ☉ 8 43 mor.	5	47	6	13	3	44	♎	9	11	4	44	morn.	
14	Tue	☿ Inf. ☌ ☉. *Cloudy*	5	48	6	12	3	21	♏	9	56	5	35		36
15	Wed	☽ in apo. & lowest.	5	50	6	10	2	58	♏	10	48	6	27	1	31
16	Thu	Neptune ☍ ☉. *hot*	5	51	6	9	2	35	♐	11	47	7	18	2	32
17	Fri	Sun fast, 5 36. *and*	5	52	6	8	2	11	♐	morn.		8	7	3	33
18	Sat	Fire San Fran. 1850.	5	54	6	6	1	48	♐		50	8	55	4	30
19	C	Bat. Stillwater, '77.	5	55	6	5	1	25	♑	1	55	9	41	5	27
20	Mon	Strauss, died 1849.	5	56	6	4	1	2	♑	3	1	10	25	6	16
21	Tue	Sun fast, 7 0. *dry.*	5	58	6	2		38	♒	4	5	11	9	6	59
22	Wed	♀ apheli. *Showery,*	5	59	6	1		15	♒	rises.		11	52	7	40
23	Thu	☿ station. *colder.*	6	0	6	0	S.	9	♓	6	0	morn.		8	13
24	Fri	☿ in ☊. *Fair.*	6	2	5	58		32	♓	6	24		38	8	55
25	Sat	Bat. Mont'rey. 1846	6	3	5	57		55	♓	6	52	1	26	9	36
26	C	Sun fast, 4 44.	6	4	5	56	1	19	♈	7	27	2	18	10	20
27	Mon	Artic lost, 1854.	6	6	5	54	1	42	♈	8	12	3	14	11	8
28	Tue	♃ ☌ ☽ 7 52 even.	6	7	5	53	2	6	♉	9	7	4	14	ev.	6
29	Wed	☽ highest and per.	6	8	5	52	2	29	♉	10	15	5	17	1	12
30	Thu	☿ gr. elong. West.	6	10	5	50	2	52	♊	11	24	6	19	2	23

10. OCTOBER. Begins on Friday, has 31 days. 1858.

Moon's Phases.

	D.	H.	M.	
New Moon,	6	9	12	E.
First Quarter,	14	7	46	E.
Full Moon,	22	10	23	M.
Last Quarter,	29	3	38	M.

Prob. 23.—A, loans $60 of B, to be paid in 60 days, in 60 equal payments, giving 10 per cent per annum of 360 days, for all sums unpaid. How much is the per diem payment? *Ans.* $1, and $\frac{100}{119}$ cts..

Prob. 24.—What is the sum of *n* terms of the series 1, 3, 6, 10, 15, &c.? *Ans.* $\frac{1}{6}n(n^2+3n+2)$

Prob. 25.—The squares of a checkerboard are square inches. How many different

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises. H.	M.	☉ Sun sets. H.	M.	☉ Sun's dec. S. °	'	Moon's place.	● Moon rises. H.	M.	● Moon south. H.	M.	High water. H.	M.
1	Fri	1st R.R. in U.S. '833.	6	11	5	49	3	16	♊	morn.		7	19	3	34
2	Sat	● ☌ ♃ 4 35 mo.	6	12	5	48	3	39	♋		44	8	15	4	40
3	C	♀ gr. elonga. East.	6	14	5	46	4	2	♋	1	59	9	7	5	39
4	Mon	Sun fast, 11m. 18s.	6	15	5	45	4	25	♌	3	11	9	55	6	30
5	Tue	Moon ☌ ☿ 4 20 ev.	6	16	5	44	4	49	♌	4	21	10	41	7	14
6	Wed	Jesse Buel d. 1839.	6	18	5	42	5	12	♍	sets.		11	26	7	51
7	Thu	E. A. Poe d. 1849.	6	19	5	41	5	35	♍	5	35	ev.	11	8	31
8	Fri	M. H. Sibley d. '852.	6	20	5	40	5	58	♍	6	0		57	9	12
9	Sat	♃ station. *Rainy,*	6	22	5	38	6	21	♎	6	30	1	45	9	53
10	C	● ☌ ♀ 8 52 ev.	6	23	5	37	6	43	♎	7	7	2	34	10	35
11	Mon	Sun fast, 13 14. *with*	6	24	6	36	7	6	♏	7	49	3	25	11	18
12	Tue	Moon lowest. *some*	6	26	5	34	7	29	♏	8	38	4	17	morn.	
13	Wed	Moon ☌ ♂ 4 19 ev.	6	27	5	33	7	51	♐	9	35	5	9		9
14	Thu	13th. ● ap. *thunder.*	6	28	5	32	8	14	♐	10	35	5	59	1	2
15	Fri	Murat shot, 1812.	6	30	5	30	8	36	♐	11	39	6	47	1	58
16	Sat	Sun fast, 14 23.	6	31	5	29	8	58	♑	morn.		7	33	2	55
17	C	Burgoyne sur. 1777.	6	33	5	28	9	20	♑		44	8	17	3	50
18	Mon	St. Luke. *Clear*	6	34	5	26	9	42	♒	1	38	9	1	4	42
19	Tue	Cornwallis sur. 1781.	6	35	5	25	10	4	♒	2	53	9	44	5	33
20	Wed	Sun fast, 15 9. *and*	6	36	5	24	10	25	♒	3	59	10	29	6	19
21	Thu	America dis. 1492.	6	38	5	22	10	47	♓	rises.		11	17	7	3
22	Fri	Dr. Payson d. 1827.	6	39	5	21	11	8	♓	4	52	morn.		7	45
23	Sat	Sun fast 15 36. *cool.*	6	40	5	20	11	29	♈	5	26		8	8	28
24	C	D. Webster d. 1852.	6	41	5	19	11	50	♈	6	7	1	4	9	19
25	Mon	Moon per. *Windy.*	6	43	5	17	12	11	♉	7	2	2	5	10	11
26	Tue	● ☌ ♃ 1 40 mo.	6	44	5	16	12	32	♉	8	6	3	9	11	4
27	Wed	26th, ● high. *Rain*	6	45	5	15	12	52	♊	9	20	4	13	ev.	5
28	Thu	Sun fast, 16 7.	6	46	5	14	13	12	♊	10	34	5	14	1	10
29	Fri	● ☌ ♃ 1 18 ev.	6	48	5	12	13	32	♋	11	49	6	12	2	14
30	Sat	♂ perihelion. *now.*	6	49	5	11	13	52	♋	morn.		7	4	3	15
31	C	Reformation be. 1517.	6	50	5	10	14	12	♌	1	2	7	52	4	15

11. NOVEMBER. Begins on Monday, has 30 days. 1858.

Moon's Phases.

	D.	H.	M.	
New Moon,	5	11	53	M.
First Quarter,	13	3	46	E.
Full Moon,	20	9	29	E.
Last Quarter,	27	0	39	E.

routes of 16 inches each, are there between two corners diagonally opposite, the routes always being along the sides of the squares? *Ans.* The 8th term of the series, 2, 6, 20, 70, 252, &c., or 12870.

Prob. 26.—From what height must an elastic ball be dropped so that it will bound back to the height of (*a*), 6 feet in the least time possible, from the instant it began to fall? *Ans.* $\frac{1}{3}$ of 4 a, or 8 feet.

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	☉ Sun rises.		☉ Sun sets.		☉ Sun's dec. S.		Moon's place.	☽ Moon. rises.		☽ Moon. south.		High water.	
			H.	M.	H.	M.	°	'		H.	M.	H.	M.	H.	M.
1	Mon	All Saints. *Look*	6	51	5	8	14	31	♌	2	11	8	38	5	7
2	Tue	Mercury in ☋. *out*	6	53	5	7	14	50	♍	3	18	9	22	5	55
3	Wed	Sun fast, 16m. 19s.	6	54	5	6	15	9	♍	4	24	10	6	6	41
4	Thu	♃ □ ☉ 11 24 mor.	6	55	5	5	15	27	♍	5	30	10	51	7	23
5	Fri	☽ ☌ ☿ 11 27 ev.	6	56	5	4	15	46	♎	sets.		11	38	8	2
6	Sat	Cuba discov. 1492.	6	57	5	3	16	4	♎	5	4	ev.	26	8	45
7	C	Sun fast, 16 10. *for*	6	58	5	2	16	22	♏	5	43	1	17	9	25
8	Mon	☽ ☌ ♀ 11 53 ev.	7	0	6	0	16	39	♏	6	31	2	9	10	13
9	Tue	M. Luther b. 1483.	7	1	4	59	16	56	♏	7	26	3	1	10	56
10	Wed	Moon apogee. *frost.*	7	2	4	58	17	13	♐	8	25	3	51	11	43
11	Thu	☽ ☌ ♂ 6 32 ev.	7	3	4	57	17	30	♐	9	27	4	40	morn.	
12	Fri	☿ in Apheli. *Clear.*	7	4	4	56	17	46	♑	10	30	5	26		32
13	Sat	11th, Baxter b. '612.	7	5	4	55	18	3	♑	11	33	6	10	1	22
14	C	Chs. Carroll. d. '832.	7	6	4	54	18	18	♒	morn.		6	53	2	11
15	Mon	Sun fast, 15 13.	7	7	4	53	18	33	♒		36	7	35	3	4
16	Tue	Bost. Tea party, '73.	7	8	4	52	18	49	♒	1	39	8	18	3	52
17	Wed	St. Gregory.	7	9	4	51	19	4	♓	2	46	9	4	4	45
18	Thu	Napoleon disin. 1840.	7	10	4	50	19	18	♓	3	54	9	53	5	36
19	Fri	Dr. Parkman mur. '49.	7	11	4	49	19	32	♈	5	8	10	47	6	28
20	Sat	Sun fast, 14 10.	7	12	4	48	19	46	♈	rises.		11	47	7	20
21	C	22d, ☽ ☌ ♃ 6 31 mo.	7	13	4	47	19	59	♉	4	48	morn.		8	10
22	Mon	☽ per. and highest.	7	14	4	46	20	12	♉	5	51		52	9	7
23	Tue	♀ stat. 10 10 mo.	7	15	4	45	20	25	♊	7	3	1	59	10	5
24	Wed	23d, ♃ station. *Cold*	7	15	4	45	20	37	♊	8	21	3	4	10	59
25	Thu	☽ ☌ ♃ 8 32 ev. *and*	7	16	4	44	20	49	♋	9	39	4	5	11	57
26	Fri	Sun fast, 12 28.	7	17	4	43	21	0	♋	10	52	5	0	ev.	53
27	Sat	*perhaps snow and*	7	18	4	42	21	11	♌	morn.		5	50	1	48
28	C	Baron Stuben d. '94.	7	19	4	41	21	21	♌		3	6	37	2	43
29	Mon	Revo. Poland, 1831.	7	19	4	41	21	32	♌	1	9	7	21	3	36
30	Tue	Sun fast 11 5. *rain.*	7	20	4	40	21	42	♍	2	17	8	4	4	28

12. DECEMBER. Begins on Wednesday, has 31 days. **1858.**

Moon's Phases.

	D.	H.	M.	
New Moon,	5	5	14	M.
First Quarter,	13	10	32	M.
Full Moon,	20	8	11	M.
Last Quarter,	27	0	43	M.

PROB. 27.—How many routes are there, between two diagonally opposite corners of a cube, that consists of 1000 small cubes, each an inch square, the routes being supposed to be exactly 30 inches long, all different in some respects, and all running along the edges of the cubes?

Answer reserved.

Day of Mon.	Day of Week.	**Phenomena, Chronology, etc.**	☉ Sun rises.		☉ Sun sets.		☉ Sun's dec. S.		Moon's place.	● Moon rises.		● Moon south.		High water.	
			H.	M.	H.	M.	°	'		H.	M.	H.	M.	H.	M.
1	Wed	*Prepare for*	7	21	4	39	21	52	♍	3	22	8	48	5	21
2	Thu	♀ ☌ ☿ 10 55 morn.	7	21	4	39	22	1	♎	4	27	9	34	6	8
3	Fri	Sun fast, 9m. 56s.	7	22	4	38	22	9	♎	5	32	10	21	6	56
4	Sat	Illinois ad. U.S.'818.	7	23	4	37	22	17	♏	sets.		11	11	7	40
5	C	Van Buren b. 1782.	7	23	4	37	22	25	♏	4	26	ev.	3	8	23
6	Mon	● ☌ ♀ 7 55. mo. *a*	7	24	4	36	22	32	♏	5	18		55	9	10
7	Tue	● apogee. *long*	7	24	4	36	22	39	♐	6	17	1	46	9	55
8	Wed	♃ ☍ ☉ 3 14. ev. *siege*	7	25	4	35	22	46	♐	7	16	2	35	10	35
9	Thu	Father Mat. d. '856.	7	25	4	35	22	52	♑	8	19	3	21	11	15
10	Fri	● ☌ ♂ 10 40 ev. *of*	7	25	4	35	22	57	♑	9	22	4	6	11	58
11	Sat	Sun fast 6 27. *cold*	7	26	4	34	23	2	♑	10	23	4	48	morn.	
12	C	Chas. XII. killed 1718.	7	26	4	34	23	7	♒	11	26	5	29		40
13	Mon	☿ gr. elon. E. 1 10.m.	7	26	4	34	23	11	♒	morn.		6	11	1	26
14	Tue	Washington d. '99.	7	27	4	33	23	15	♓		28	6	54	2	12
15	Wed	U.S. Pat. Off. b. '836.	7	27	4	33	23	18	♓	1	34	7	40	3	5
16	Thu	Gt. Fire N. Y. 1835.	7	27	4	33	23	21	♓	2	44	8	30	3	58
17	Fri	Sun fast 3 34. *weath'r*	7	27	4	33	23	23	♈	3	57	9	26	4	57
18	Sat	Treat. with Russ. '832.	7	28	4	32	23	25	♈	5	24	10	28	6	0
19	C	● ☌ ♃ 0 6 ev. *with*	7	28	4	32	23	26	♉	rises.		11	35	7	2
20	Mon	☿ stat. ● peri. *rain*	7	28	4	32	23	27	♉	4	37	morn.		8	0
21	Tue	☿ in ☊. *or snow.*	7	28	4	32	23	28	♊	5	52		43	9	0
22	Wed	Pilgrims land. 1620.	7	28	4	32	23	27	♊	7	16	1	48	9	56
23	Thu	Moon ☌ ♃ 4 0 mo.	7	28	4	32	23	27	♋	8	36	2	48	10	45
24	Fri	Sun and clock agree.	7	28	4	32	23	26	♋	9	51	3	43	11	35
25	Sat	Christmas. *Freezes*	7	28	4	32	23	24	♌	11	1	4	32	ev.	24
26	C	☿ in perihelion. *up*	7	27	4	33	23	23	♌	morn.		5	18	1	13
27	Mon	St. John. *tight.*	7	27	4	33	23	20	♍		9	6	3	2	2
28	Tue	Innocents. *Snow*	7	27	4	33	23	17	♍	1	15	6	47	2	55
29	Wed	Sun slow 2 23.	7	27	4	33	23	14	♋	2	18	7	32	3	49
30	Thu	☿ Inf. ☌ ☉. *or rain.*	7	27	4	33	23	10	♋	3	25	8	19	4	45
31	Fri	● per. 6 37 mo.	7	26	4	34	23	6	♏	4	29	9	8	5	40

HERSCHEL'S WEATHER TABLE.

For foretelling the Weather, through all the Lunations of each Year, for ever.

This table and the accompanying remarks are the result of many years' actual observation, the whole being constructed on a due consideration of the attraction of the sun and moon, in their several positions respecting the earth, and will by simple inspection show the observer what kind of weather will most probably follow the entrance of the moon into any of its quarters, and that so near the truth as to be seldom or never found to fail.

If the new moon, the first quarter, the full moon or last quarter happens	IN SUMMER.	IN WINTER.
Between midnight and 2 in the morning.	Fair.	Hard frost, unless the wind is S. or W.
—— 2 and 4, morning,	Cold, w'h freq't show'rs.	Snowy and Stormy.
—— 4 and 6, "	Rain.	Rain.
—— 6 and 8, "	Wind and Rain	Stormy.
—— 8 and 10, "	Changeable.	Cold rain, if the wind be W., snow if E.
——10 and 12, "	Frequent showers.	Cold, and high wind.
At 12 o'clock at noon, and 2 P.M.,	Very rainy.	Snow or rain
Between 2 and 4 P.M.	Changeable.	Fair and mild.
—— 4 and 6, "	Fair.	Fair.
—— 6 and 8, "	Fair, if wind N. W., Rainy, if S. or S. W.	Fair and frosty, if the wind is N. or N. E. Rain or snow, if S. or S. W.
—— 8 and 10, "	Ditto.	Ditto.
——10 and midnight.	Fair.	Fair and frosty.

OBSERVATIONS.—1. The nearer the time of the moon's change, first quarter, full, and last quarter, are to *midnight*, the fairer will the weather be during the seven days following.

2. The space for this calculation occupies from ten at night till two next morning.

3. The nearer to *mid-day*, or *noon*, the phases of the moon happen, the more foul or wet weather may be expected during the next seven days.

4. The space for this calculation occupies from ten in the forenoon to two in the afternoon. These observations refer principally to the summer, though they affect spring and autumn nearly in the same ratio.

5. The moon's change, first quarter, full, and last quarter, happening during six of the afternoon hours, *i. e.* from four to ten, may be followed by fair weather; but this is mostly dependent on the *wind*, as is noted in the table.

6. Though the weather, from a variety of irregular causes, is more uncertain in the latter part of autumn, the whole of winter, and the beginning of spring, yet, in the main, the above observations will apply to those periods also.

7. To prognosticate correctly, especially in those cases where the *wind* is concerned, the observer should be within sight of a good *vane*, where the four cardinal points of the heavens are correctly placed.

The above Table was originally formed by Dr. Herschel, and is now published with some alterations, founded on the experience of Dr. Adam Clarke.

WINDS.—The approach of high winds may be anticipated from these general prognostics: When cattle appear frisky, and toss their heads and jump; when geese attempt to fly, or distend and flap their wings; when sheep leap and play, boxing each other; when pigs squeal and carry straw in their mouths; when the cat scratches a tree or post; when pigeons clap their wings smartly behind their backs in flying; when crows mount in the air and perform somersets, making at the same time a garrulous noise; when swallows fly on one side of trees, because the flies take the leeward side for safety against the wind; when magpies collect in small companies, and set up a chattering noise.

PREDICTIONS OF THE WEATHER.

In all ages, and among all classes of people, it has been a problem at once curious and highly desirable, to truly calculate the weather. But no fortunate results in this direction have ever yet been realized. We are not without many rules, however, for finding out the weather—as many as there are persons, perhaps; for almost every person has a rule or rules peculiar to himself, which credulous and unphilosophical persons put confidence in. It is hardly necessary to say to the public that the thousands of notions about the weather in the future are *senseless*, and often *ridiculous*, and too foolish to be entertained a moment by any one. The statements in almanacs about the weather are entirely a matter of guesswork made at random. The well-known "Weather-tables," sometimes found in almanacs, which go under the cover of Herschel's or Dr. Adam Clarke's name, are also destitute of reason and of facts to substantiate their predictions.

The Moon's Changes constitute the basis of the *weather-tables;* but it must be remembered that any particular quarter or change of the moon, occurring at a given instant, takes place at that same instant of absolute time all over the world, and hence, if the changing of the moon produces a change in the weather, then the same change that is observed at any locality should be observed at every other place in the world, and at the same instant of absolute time. But no such coincidences transpire, as records of the weather, kept for forty years together, in different localities, amply show. There may be changes of the weather about the time of the change of the moon; but they are not caused by it, and are just as likely to occur at any other time as then. We hope people will soon abandon the idea that the moon produces any changes in the weather.

The causes of changes in weather are undoubedtly traceable to chemical changes in the air and earth—electrical changes being the immediate cause. There is, therefore, no possibility for any man to find a *system* to these changes, and hence no one can foretell the weather, nor the *effects* of such changes.

Our only means of prognostication are narrowed down to the limit of a few hours. There are some indications which close observers regard as reliable. Thus *rain is indicated* when clouds form, or when they enlarge in size, and when small clouds merge into larger ones; when clouds descend from a high region to a lower one, or when they set down on the tops of the hills; when there is a pale appearance of the sky; when the sun and moon look dull; when the cusps or horns of the moon are dull or blunt, and its edges are poorly defined; when the moon is surrounded with an iris; when the stars look pale, and larger, and fewer; when the wind blows strongly and incessantly from a warm direction, or one that is generally wet; and when certain plants close their flowers. These conditions all indicate a moist and wet atmosphere at the place of observation, and rain will, in most cases, soon follow, but not always. Phenomena opposite these mentioned usually result from a dry atmosphere, and then fair or dry weather may be expected; but it does not always follow. In fact, there are no indications that are absolutely certain except that of the falling drops for rain, and bright sunshine for fair weather.

Dundee, N. Y. S. H. WRIGHT.

God of the sunshine! God of the storm!
Thou makest the seasons Thy will to perform;
The Summer, the Autumn, the Winter, the Spring,
Thy goodness proclaim, Thy praises do sing.
Ever calmly resigned, let us bow to Thy will,
And Thine arm shall sustain us, Thy care guard us still.—Anon.

ANSWERS TO THE PROBLEMS FOR 1857.

Prob. 1. Let $s=\frac{1}{2}(a+b+c+d)$, then $\sqrt{[(s-a)(s-b)(s-c)(s-d)]}$ Ans. Prob. 2. The number 1234 should have been 123.4; 2468 Ans. Prob. 3. \$3429.23568, \$3312.99040, \$3257.77389 Ans. Prob. 4. \$1500. Prob. 5. (6 ?) $x=2$, $y=6$. Note. There have been several interesting solutions of this, but in every case some unknown quantity is found by *trial* which is not desired. Prob. 6. 1-6 of $5\sqrt{3}$, or 1.44338. Prob. 7. $x=1$, $y=3$. Many solutions of this have been received. Prob. 8. $2(3-\sqrt{3})=2.53589795$ Ans. Prob. 9. 74 Ans. Prob. 10. Base 58.8784, perp. 5.4349. Prob. 11. 12 diameter. Prob. 12. A's 2-9, B's $\frac{1}{3}$, C's 4-9 of the gain. Prob. 13. 390×3.1416, or 1225.224 ft. Prob. 14. At 49 and 1-11 m. past 3 o'clock. Prob. 15. 13,860 days, or May 13th, 1895, at *noon*. Prob. 16. At top 63.51 lbs.; thrust 257.794 lbs. Prob. 17. 2.3094 by 3.2659864. Prob. 18. The number is incredible, and is found by the continued product of 101, 102, 103, 104, &c., to 200, which must be divided by the continued product of 1, 2, 3, 4, 5, 6, &c., to 100. If n be the number of squares on a side of the tract, then $(\frac{n+1}{1})\ (\frac{n+2}{2})\ (\frac{n+3}{3})\ldots\ldots\ldots(\frac{n+n}{n})$ is the Ans. Prob. 19. 180° from London; some say in the longitude of Behring's straits. Prob. 20. 821.382131 miles. Prob. 21. 146.07843 miles; course N. 20° 0′ 54″ W. Prob. 23. Convex sur. space 37.0079; do. water 72.948099; solidity space 32.9837; do. water 130.3795. Prob. 24. 31.14915 miles. Prob. 25. 94.8974, 67.1026, 47.4487, and 33.5513 gallons. Prob. 26. 1.081382587 Ans.

S. H. WRIGHT.

NOTICE.—The problems in this year's almanac (1858) have the answers attached, and persons who send 12 or more correct *solutions* of those problems will have the same acknowledged in the next issue. Address Samuel H. Wright, Dundee, Yates Co., N. Y., before May 5th. Letters to be answered must enclose a *stamp*.

ACKNOWLEDGMENTS.—Many solutions have been received for the Problems for 1857, and they show a better taste and greater mathematical skill than heretofore.

Correct solutions for 1857 have been received as follows:

Mr. A. Bronk, Mariaville, N. Y., all except 1, 8, 16, 24.
Mr. Thos. P. Stowell, Hornelsville, N. Y., all except 4th.
Mr. A. B. Evans, Yates, N. Y., all except 18th.
Mr. Ogden A. Pratt, Green, N. Y., all but 1, 3, 22.
Mr. Horace Otis, Adams Centre, N. Y., all but 5, 16, 18, 20, 21.
Mr. Denis Keiley, New York city, 15 problems.
Mr. Robert B. Jackson and N. Sprague, 12 each.
Mr. John K. Hallock, 10.
Mr. G. W. Banker, Michael Geraghty, and D. W. L. Lewis, 9 each.
John H. and Joel Warner, C. O. Compton, Ezra Clark, J. T. Landers, and E. F. Crandall, each 7.
Waldo West, John Stagg, H. P. Kimball, W. H. Riseley, Harrison Wight, and C. Carmany, each 5.
R. W. Gilmore, J. G. Treat, M. C. Weeks, B. C. of Lapeer, N. Y., H. D. Donnelly, W. H. Willard, J. H. Calkin, and Alexander Anderson, Guelph, Canada West, each 4.
Wm. Boice and J. E. Deans, each 3.
S. V. R. Alyea, 2; and Mr. J. M. Mamobring, A. B., the algebraic problems 5 and 7.

Remark.—Hereafter there must be at least a dozen correct solutions to entitle the author to an acknowledgment.

Dundee, Yates Co., N. Y., May 1st, 1857. S. H. WRIGHT.

LETTER POSTAGE.

For any distance not over 3,000 miles (half ounce)	3 cts.
Each additional half ounce	3 "
To CALIFORNIA and OREGON (half ounce)	10 "
Each additional half ounce	10 "
To or from CANADA, not over 3,000 miles (half ounce)	10 "
Each additional half ounce	10 "

All letters sent in the United States must be prepaid, either by postage-stamps or stamped envelopes.

Weekly newspapers (one copy only), sent to actual subscribers within the county where printed and published, go free.

Quarterly Rates of Postage when paid in advance on Newspapers and Periodicals sent from the office of publication to actual subscribers.	*Daily.*	*Six times a week.*	*Tri-Weekly.*	*Semi-Weekly.*	*Weekly.*	*Semi-Monthly.*	*Monthly.*
	cts.	cts.	cts.	cts.	cts.	cts	cts.
Newspapers and Periodicals not exceeding 1½ oz. in weight, when circulated in the State where published	22¾	19½	9¾	6¾	3¼	1½	¾
Newspapers and Periodicals of the weight of 3 oz. and under, sent to any part of the United States	45½	39	19½	13	6½	3	1½
Over 3 and not over 4 ounces	91	78	39	26	13	6	3
Over 4 and not over 5 ounces	1 36½	1 17	58½	39	19½		4
Over 5 and not over 6 ounces	1 82	1 56	78	52	26	12	6
Over 6 and not over 7 ounces	2 27½	1 95	97½	65	32¼	15	7½
Over 7 and not over 8 ounces	2 73	2 34	1 17	78	39	18	9

POSTAGE ON TRANSIENT PRINTED MATTER,

Which must be prepaid by Postage-stamps before it can be transported in the mails of the United States.

Newspapers, periodicals, unsealed circulars or other article of printed matter (except books), when sent to any part of the United States—3 oz. or under, 1c.; 3 to 4, 2c.; 4 to 5, 3c.; 5 to 6, 4c.; 6 to 7, 5c.; 7 to 8, 6c.

Where more than one circular is printed on a sheet, or a circular and letter, each must be charged with a single rate. A business card on an unsealed envelope of a circular, subjects the entire packet to letter postage. Any transient matter, like a circular or handbill, inclosed in or with a periodical or newspaper sent to a subscriber, or to any other person, subjects the whole packet to letter postage.

Books, bound or unbound, not weighing over four pounds, may be sent in the mail prepaid by postage stamps, at one cent an ounce any distance in the United States under three thousand miles, and at two cents an ounce over three thousand miles, provided they are put up in a cover or wrapper open at the ends or sides, so that their character may be determined without removing the wrapper.

Bills and receipts for payments of moneys for newspapers may be inclosed in subscribers' papers.

Exchanges between newspaper-publishers, for one copy from each office, free.

Newspapers, etc., to be so inclosed that the characters can be determined without removing the wrapper; to have nothing written or printed on the paper or wrapper beyond the direction, and to contain no inclosure other than the bills or receipts mentioned.

Be careful to direct all letters and papers, sent by mail, plainly, with place, County, and State.

UNITED STATES GOVERNMENT.

EXECUTIVE DEPARTMENT.

The 18th Presidential Term, of four years, since the establishment of the Government of the United States under the Constitution, began on the 4th day of March, 1857, and will expire on the 4th day of March, 1861

	SALARY
JAMES BUCHANAN, of Pennsylvania, *President,*	$25,000
JOHN C. BRECKINRIDGE, of Kentucky, *Vice-President,*	8 000

THE CABINET.

LEWIS CASS, of Michigan, *Secretary of State*	8,000
HOWELL COBB, of Georgia, *Secretary of the Treasury*	8,000
JACOB THOMPSON, of Mississippi, *Secretary of the Interior*	8,000
JOHN B. FLOYD, of Virginia, *Secretary of War*	8,000
ISAAC TOUCEY, of Connecticut, *Secretary of the Navy*	8.000
A. V. BROWN, of Tennessee, *Postmaster-General*	8 000
JUDGE J. S. BLACK, of Pennsylvania, *Attorney-General*	8,000

The Officers of the Cabinet hold their offices at the will of the President, but are appointed with the consent of the Senate.

THE GREAT SNOW STORM OF JANUARY, 1857.

REPORT TO THE NAVY DEPARTMENT.

U. S. N. Observatory and Hydrographical Office,
Washington, February 5, 1857.

Letters in answer to the circular issued from this office have already been received from the States along the Atlantic seaboard. They contain statistics enough concerning the great snow storm of January, 1857, to justify a preliminary report of its march over this part of the country.

The hour when it commenced, and the hour when it ceased to snow, constituted very notable features by which the march of this storm could be traced. The precise moment of the commencement, however, was not very well marked; for that was a light fall of snow, which, after an hour or two, increased into a very heavy fall. Hence observers at the same place are sometimes found differing an hour or so in their reports as to the commencement of the snow fall.

The following tabular statement has been compiled by Lieut. Bennett, from the reports, as far as received:

Beginning of Storm.	1857 January.	Wind.	Thermometer.	Depth of Snow.	Ending of Storm.	Thermometer.
Augusta, Ga.	8½ A. M. 18	West.	†38	7 in.	Night 18	†8
Normal College, N. C.	9 P. M. 17	N. E.	†10	18 in.	Night 18	−6
Roxobel, N. C.	9 P. M. 17	South.	----	12 to 15	9 A. M. 19	†7
Providence, Va.	8½ P. M. 17	North.	†12	--------	Noon 19	†10
Jesamine Co., Ky.	5 P. M. 17	N. N. W.	----	--------	11 A. M. 18	---.
Middleburg, Va.	7 A. M. 18	N. E.	†4	12 in.	12 M. 19	†6
Berryville, Va.	7 45 A.M. 18	N.	†5	8 in.	8 A. M. 19	†11
Perrymansville	3 P. M 17	N. E.	†4	--------	Night 18	---
Sarou Creek, Md.	7 A. M. 18	N. E.	†4	--------	1 P. M. 19	†18
Hagerstown, Md.	8 A. M. 18	N. N. W.	−6	8 to 10	8 A. M. 19	−0
Coch'ville, Pa.	10 A. M. 18	N.	----	9 in.	12 M. 19	---.
Philadelphia	1 P. M. 18	N. E.	†7	24 in.	3 P. M. 19	†16
Bristol, Pa.	1 P. M. 18	N.	zero	--------	Mor'ing 19	---
Willgborough, N. J.	1 P. M. 18	N. E.	−1	7 to 8	10½ A.M. 19	−3
Lambertsville	2½ P. M. 18	N. W.	†2	16 in.	12 M. 19	---
Newark, N. J.	2 P. M. 18	N.	−4	--------	3 P. M. 19	†13
Brooklyn, N. Y.	2 P. M. 18	----------------	†7.5	--------	Evening 19	†14
Babylon, L. I.	4 P. M. 18	N. E.	†1	--------	19	---
New York	Noon 18	N. W.	†1.	9 in.	19	†13
Wheeling, Va.	No snow	N. E.*	----	--------	------------	---
N. E. Dutchess Co.	Night 18	N. N. W.	−10	24 in.	Night 19	---
New London	8 P. M. 18	N.	†5	--------	Mor'ing 20	†11
Harvard College	5 P. M. 18	N. W. & N. N. E.	−4	17 in.	9 P. M. 19	†8
Boston	7½ P. M. 18	N.	†2½	18 to 20	12 M. 19	†13
Salem, Mass.	Evening 18	N. E.	†5	8 to 9	Evening 19	†12
Worcester, Mass	9 P. M. 18	N. E.	−1	10 in.	Evening 19	†9
Troy, N. Y.	9 P. M. 18	N.	−7	29 in.	8 P. M. 19	†5
Cooperstown	0 30 A.M. 19	N. E.	−10	--------	Sunset 19	†1
Rochester, N. Y.	19	N.	†17	--------	20	†21
Charleston, N. H.	Dayl'ht 19	N. N. E.	zero	18 in.	5 P. M. 19	†12
Portland, Me.	10 P. M. 18	N.	−3	12 in.	2 P. M. 19	†12
Gardiner, Me.	00 19	N. E.	−2	10 in.	9 P. M. 19	−6

The fury of this storm has been unequaled for many years. Never since the establishment of railroads has there been such an interruption of travel or hindrance to the mails. It illustrates, in a very striking manner, the necessity—if we wish thoroughly to investigate the laws which govern the movements of the great aerial ocean on which we live—of extending our meteorological researches from the sea to the land. What though this storm may have had its origin on the land, it caused many and dreadful shipwrecks along the shore, and disasters at sea. The appliances which, in the progress of the age, have been placed within the reach of men of science, would, had the power of using them been possessed by these men, have enabled them to give timely warning of the approach of this storm to many whose lives such warning would have saved.

W. F. Maury, U. S. Navy.

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* Indications of snow, very cold, and thermometer at zero.

AMERICANS, BE UNITED.

BY O. W. HOLMES.

By the name that you inherit,
By the sufferings you recall,
Cherish the fraternal spirit;
Love your country first of all!

THE TERRITORIES.

There are now open for settlement the Territories of Minnesota, Oregon, Nebraska, Washington, New Mexico, Utah, and Kansas. These territories contain, according to a compendium of census of 1850, published in 1854, the following area:

Minnesota,	166,025	square miles.
Oregon,	185,030	"
Nebraska,	335,882	"
Washington	123,022	"
New Mexico,	207,007	"
Utah,	299,170	"
Total,	1,286,136 or 823,127,040	acres.
Kansas,	114,798 or 73,470,720	"

The above six territories contain 1,286,136 square miles, or 823,137,040 acres of land; and, as the total area of all the states and territories belonging to the Union is 2,936,166 square miles; they comprise nearly one half of the whole. They run through some seventeen or eighteen degrees of latitude, and embrace millions of acres of the finest land and mineral deposits in the finest climate on the finest rivers in the world.

SEVENTH UNITED STATES CENSUS.

RELIGIOUS ITEMS.

From the census tables, we find the total number of churches in the United States was, in 1850, 38,183, and the total value of the property belonging to them was $89,983,028. The number of persons which could be accommodated at one sitting was ascertained to be 14,360,038. Twenty different sects were specified by name, and others included under the head of minor sects.

To the Methodists belong 13,338 churches, the largest number owned by any single denomination; next are the Baptist, 9,360; Presbyterian, 4,863; Episcopalian, 1,461; Congregational, 1,706; Roman Catholic, 1,227; Lutheran, 1,221; and Christians, 868. The Methodist church property is worth $14,826,148; the Presbyterian, $14,557,089; the Episcopal, $11,384,210; the Baptist, $11,001,127; and the Roman Catholic, 9,256,758. The Methodists and Baptists together, have more than one half of all the churches; and the Episcopal and Roman Catholic are about equal in number. The Methodists and Presbyterians have a larger amount of church property than any other denomination. The Baptist and Episcopal are next, and are also about equal. The Catholics, though they have but one-eleventh as many churches as the Methodists, have much more than half the church property.

According to the American Almanac for 1857, the population of the globe is as follows: Europe, 263,517,521; Asia and islands, 626,000,000; Africa, 100,000,000; America, 57,676,882; Australia and islands, 1,245,000; Polynesia, 1,500,000. Total, 1,050,139,403.

THE FUTURE OF AMERICA FORESHADOWED BY THE PRESENT.

The machinery of production in America is already greater than that of England. Our twenty-three millions of citizens produce a larger amount of valuable staples, while they build twice as many houses; make twice as many roads; apply three times more labor in the improvement of land; build four times as many school-houses and churches; and print ten times as many newspapers. We have laid the foundation of a pyramid, whose base is a million of square miles, studded all over with innumerable little communities, each one of which occupies space sufficient for a large one, with its academy or its college, its journals, book-stores, and libraries, all aiding to give to the superstructure a magnificence proportioned to the breadth and stability of its base. Among the more Western states, not less than in the eastern, there is universal activity and intelligence. It is safe to repeat that the commonwealths recently organized have more and better printing-presses, and consume more well-read paper; that they have more commodious school-houses, and more scholars in them; more churches, and more devout Christians in them; more well-selected libraries, and more thoughtful readers in them, than any other nation on earth.

What our future may become, our brief past will best suggest. We know that however high we may ascend the course of history, we see, not in each or any particular people, but in the human family as a whole, an uninterrupted endeavor to enlarge the boundaries of knowledge always progressive; so that, from the obscurity of earliest time, we arrive, step by step, to modern science, more certain, more extended, and more prolific in practical results than was ever known in preceding ages. This progress is proved by the sovereignty which man has successively acquired over nature, subordinating to his will her most energetic forces, and compelling them to accomplish the highest ends in the surest manner. We see what the earth, transformed in an immense portion of its best surface, has become under his hand. He subdues the billows, traverses seas, and his invincible thought, aspiring to still sublimer empire, makes his necessities to be served by the stars which vainly flee in the deserts of space.

From the survey which has been taken above of the spreading of ameliorating empire in the great West, it is evident that its central throne must soon rest on the granite heights beyond the great lakes, near the sources of the mighty Mississippi. Thither the free and brave millions are fast gathering, whose noble progeny will people the entire continent, and bless the world. The denizens of those wealthy regions, and the patriots of those happy times, will be both intelligent and brave beyond precedent in conserving the republican institutions they have received to perfect and perpetuate. The sentiment of the great man of the extreme east, will be best appreciated, and most sublimely exemplified, in proportion as it sweeps with the sun from the horizon of its origin; and, from the loftiest Rocky Mountains, resounds simultaneously from ocean to ocean, the profoundest sentiment of undivided peoples, "Liberty and union, now and forever, one and inseparable."—*Westward Empire, by Rev. E. L. Magoon, D. D.*

OUR LAND AND FLAG.

BY GEO. P. MORRIS.

My native land, I turn to you
  With blessing and with prayer,
Where man is brave and woman true,
  And free as mountain air.

Long may our flag in triumph wave,
  Against the world combined,
And friends a welcome, foes a grave,
  Within our borders find.

HINTS AND HOME QUESTIONS.

"Buckwheat cakes," said an old lady of our acquaintance, "are good, very good, indeed, but to keep your own counsel is a heap better." In your intercourse with your neighbors, had you not better be governed by the law of love, than by the love of law? Have you fulfilled one-half the good resolutions you made the beginning of the last year? When you are thinking of having a "good time," always have such a "time" as is "good" to think of the next day. Never despair! there is everything to hope for a sober, industrious, persevering man. As you get along in years you will find the truth of the old schoolmaster's saying, that the "product of happiness is found not so much in increasing your numerator, as in lessening your denominator." "Providence," says Arthur, "never hedges a man up in one direction, without leaving a way open for him in another." Daniel Webster said, "A man who is not ashamed of himself need not be ashamed of his early condition." Happiness, I suppose you know, dwells in common places. Did you ever try the famous Soothing Syrup, for domestic troubles? Here is the receipt: Two parts self-control, one part kindness, one part reflection, and the other part a little more of all three; it is excellent to make the children good-natured, and everything go smoothly, and is the best Healing Balsam for "urban or suburban" districts that we know of. Try it. Toleration of individual peculiarities is a common duty we owe to each other. Is it not better to avail yourself energetically of the realities of the present, rather than trust the slippery promises of an unknown future? No circumstance is so fraught with the elements of discontent as the habit of making ill-judged comparisons of our condition with that of others. I presume you are aware that you must learn to be silent before you can learn to talk well. Sidney Smith said to his son, "Remember in books" (and he might well have added, in your intercourse with mankind) "always to keep the best company."

Books.—A learned writer says of books: "They are masters who instruct us without rods or ferules, without words or anger, without bread or money. If you approach them, they are not asleep; if you seek them, they do not hide; if you blunder, they do not scold; if you are ignorant, they do not laugh at you."

Pay Your Debts.—Five dollars, properly moved about, will pay twenty debts in a single day. Let the man of capital begin and pay off promptly his laborers, then his laborers will have the means of paying those they owe.

An old author quaintly remarks, "Avoid argument with ladies. In spinning yarns among *silks* and *satins*, a man is sure to be worsted and twisted. And when a man is worsted and twisted, he may consider himself wound up."

It is not your business, but the energy and prudence with which you conduct it, that will decide between your success or failure.

Few things in this world trouble people more than poverty, or the fear of poverty; and, indeed, it is a sore affliction; but, like all other ills that flesh is heir to, it has its antidote, its reliable remedy. The judicious application of industry, prudence, and temperance, is a certain cure.

WASHINGTON'S HIGH CHARACTER.

BY EDWARD EVERETT.

But the pure morality of Washington's character was its most important feature, and Mr. Everett, in the famous oration which he has delivered before such delighted audiences, declares it to be his decided conviction, "that it was an important part of the design of Providence, in raising up Washington to be the leader of the Revolutionary struggle, and afterwards the first President of the United States, to set before the people of America, in the morning of their national existence, a living example to prove that armies may be best conducted, just wars more successfully fought, and governments most ably and honorably administered, by men of sound moral principle; to teach to gifted and aspiring individuals, and the parties they lead, that, though a hundred crooked paths may conduct to temporary success, the one plain and straight path of public and private virtue can alone lead to a pure and lasting fame, and the blessings of posterity."

"That which thou hast to do, do it with all thy might," said a clergyman to his son one morning.

"So I did this morning!" replied Bill, with an enthusiastic gleam in his eye.

"Ah! what was it, darling?" and the father's fingers ran through his offspring's curls.

"Why, I walloped Jack Edwards," said the young hopeful, "till he yelled like blazes! You should just hear him holler, dad!"

The father looked unhappy, while he explained that the precept did not apply to any act like that, and concluded mildly with—

"You should not have done that, my child."

"Then he'd a walloped me," replied the young hopeful.

"Better," said the sire, "for you to have fled from the wrath to come."

"Yes, but," replied hopeful, by way of a final clincher, "Jack can run twice as fast as I can."

The good man sighed, went to his study, took up a pen, and endeavored to compose himself.

An Invitation.—"Our folks at hum want to know, if your folks 'll come down to-night to see our folks, and fetch all your folks along? All the fellers must put on their yellerest vests and stiffest shirt collars, and fetch all the gals, and I'll bet a hunk of gingerbread agin a gob of 'lasses candy that you'll have a rambunkcious time."

The Answer—"Our folks present peppliments to your folks, and say they shall be most excruciatingly happy to come down and see your folks providing Sal and Suke get their new gowns done."

THE NEW CATECHISM.

What is Matrimony? Hot buckwheat cakes, warm beds, comfortable slippers, smoking coffee, round arms, red lips, kind words, shirts exulting in buttons, redeemed stockings, boot-jacks, happiness, etc.

What is Single Blessedness? Sheet-iron quilts, blue-noses, frosty rooms, ice in the pitcher, unregenerated linen, heelless socks, coffee sweetened with icicles, gutta percha biscuits, flabby steak, dull razors, corns, coughs, and colics, rhubarb, misery, etc. Ugh!

Grief is lessened by common endurance; joy and hope are sweeter by common enjoyment.

THE SOCIAL CUP OF TEA.

When day is done, and fades the sun
O'er landscapes rich and gay;
While twilight's gloom, with sweet perfume,
Succeeds a summer day.

When darkness spreads her deepest shades,
And clouds obscure the sky,
While torrents tumble through the glades,
And winds are raging high.

When snows appear, and all is drear,
A bleak and barren waste;
While lofty woods and mighty floods
Are roaring in the blast.

When spring comes on, and storms are gone,
And earth in verdure dressed;
While songs of birds, and cheerful words
Enliven every breast.

'Tis sweet to sit in pleasure's bower,
From care and sorrow free,
And taste, at evening's pensive hour,
The social cup of tea!

"Who buys a house ready wrought,
Gets many a nail and stone for naught."

Who builds a house and lacks wherewith to pay,
Makes him a home from which to run away.

COMPENSATIONS OF LIFE.

Each has its sources of peculiar bliss;
What one denies in that, it gives in this;
Each boasts peculiar good, peculiar ill;
And, strike the balance, all are equal still.

"Madam, your shawl is dragging in the mud."

"Well, suppose it is, isn't it fashionable?"

"John, I fear you are forgetting me," said a bright-eyed girl to her sweetheart, the other day. "Yes, Lib, I have been for *getting* you these two years."

Fashionable Extravagance.—A correspondent writes us that, at a party last week, the belle of the evening had 550 yards of blue ribbon on her dress.

"Won't you take half of this poor apple?" said a pretty damsel to a witty swain. "No, I thank you; I would prefer a *better half*." Eliza blushed, and referred him to her papa.

ENIGMATICAL LIST OF BIRDS.

1. A child's plaything.
2. What we all do at every meal.
3. A disorder incident to the horse.
4. Nothing—twice yourself and fifty.
5. Equality and decay.
6. A celebrated English architect.

ANSWERS.

BIRDS.

1. A Kite.
2. Swallow.
3. Thrush.
4. Owl.
5. Parrot.
6. Wren.

ENIGMATICAL LIST OF TREES.

1. The tree that takes a gift.
2. The name of a city.
3. The tree that is eaten.
4. The tree that all desire pecuniarily.
5. The tree that clothes half the world.
6. The tree that is a lady's name.

ANSWERS.

TREES.

1. Palm.
2. Cork.
3. Crab.
4. Plum
5. Cotton.
6. Olive.

ANAGRAMS OR TRANSPOSITIONS.

1. Hard Case.
2. Sly Ware.
3. One Hug.
4. Nine Thumps.
5. To love Ruin.
6. Great Helps.

ANSWERS.

1. Charades.
2. Lawyers.
3. Enough.
4. Punishment.
5. Revolution.
6. Telegraphs.

CONUNDRUMS.

1. What key is the hardest to turn?
2. Why are cowardly soldiers like butter?
3. When is a lady's bonnet superior to itself?
4. Why is a poet like a toy?
5. Why do we buy new shoes?
6. What is that a neat person always looks for, and never wishes to find?

ANSWERS.

1. Donkey.
2. Will run when exposed to fire.
3. When it becomes a pretty woman.
4. He is devoted to a *muse*, and delights *in fancy*.
5. Because no one will give them to us.
6. A hole in the stocking.

THE CORN SONG.

ABRIDGED FROM THE "HUSKERS," BY J. G. WHITTIER.

Heap high the farmer's wintry hoard!
  Heap high the golden corn!
No richer gift has autumn poured
  From out her lavish horn.

Let vapid idlers loll in silk,
  Around their costly board;
Give us the bowl of samp and milk,
  By homespun beauty poured.

Where'er the wide old kitchen hearth
  Sends up its smoky curls,
Who will not thank the kindly earth,
  And bless our farmer girls.

Then shame on all the proud and vain
  Whose folly laughs to scorn
The blessing of our hardy grain,
  Our wealth of golden corn!

Long let the good old crop adorn
  The hills our fathers trod;
Still let us, for his golden corn,
  Send up our thanks to God.

THE PLOUGHMAN'S WHISTLE.

BY N. STONE.

The ploughman's shrill whistle, how joyous the sound!
From hillside and valley 'tis ringing around;
The little birds listen, then catch the glad strain,
Till hillside and valley re-echo again.
The ploughman's shrill whistle, 'tis music more sweet
Than viol or flute, or the gay clarinet.
So joyous contented, so heartsome and gay,
It rings o'er the hills and the valleys away.
The ploughman's shrill whistle, I hear again,
As oft on the hillside I waked the glad strain;
O, give me the plough and the fresh mountain air,
And I'll whistle defiance to sorrow and care.

HEALTHINESS OF FARMING.

Agriculture, from the constant and regular employment it gives, is most conducive to health. The labor it requires is calculated to knit the frame, and give strength and vigor to the muscular system; besides, it is mostly carried on in the open air, which tends to promote a free and generous perspiration, and give tone and elasticity to the body; while many kinds of mechanical and other employments are rendered unhealthy by the constrained position in which they must be performed, and the close confinement which is necessary in carrying them on. It is obvious that mind and body must be exercised together, in order to promote a regular and healthy growth in both. Man is naturally indolent, and loves his ease; and, were it not for the strong hand of necessity, he would often become idle, useless, and wicked. The constant and regular employment, therefore, which a farm requires, makes it promotive of good morals; whereas, in other employments, where those engaged are more dependent on others, their labor is more irregular. This often leads them to spend a portion of their time in idleness, and thus bad habits are contracted, acquaintance is formed with persons of impure morals, and their characters and standing in society are destroyed. This is one among many reasons why persons who live in cities are more liable to become profane, intemperate, and vicious than those who reside in the country. The business of farming is one which renders mankind more or less independent of each other, but impresses their minds deeply with a sense of their dependence on the Divine Providence; for they know that they may cultivate his land in the best possible manner, and plant it with the best of seed; yet, unless God gives a favorable season, they can raise no crop. The constantly realize the truth of the holy oracle, that "Paul may plant, and Apollos water, but God giveth the increase." There is no employment that leads a man to reflect so much upon the character and works of God as farming, and, consequently, none is so conducive to morality and the practice of virtuous principles.

FIXED FACTS IN AGRICULTURE.

The following list of "fixed facts" in agriculture, for once, in a condensation of the sort, hits the right nail on the head in most of them:

1. All lands on which clover or the grasses are grown must either have lime in them naturally, or that mineral must be artificially supplied. It matters but little whether it be supplied in the form of stone-lime, oyster-lime, or marl.

2. All permanent improvement of lands must look to lime as its basis.

3. No lands can be preserved in a high state of fertility, unless clover and the grasses are cultivated in the course of rotation.

4. Mould is indispensable in every soil, and a healthy supply can alone be preserved through the cultivation of clover and the grasses, the turning in of green crops, or by the application of composts rich in the elements of mould.

5. All highly concentrated animal manures are increased in value, and their benefits prolonged, by admixture with plaster, salt, or with pulverized charcoal.

6. Deep ploughing greatly improves the productive powers of every variety of soil that is not wet.

7. Subsoiling sound land—that is, land that is not wet—is also eminently conducive to increased productions.

8. All wet land should be drained.

9. All grain crops should be harvested before the grain is fully ripe.

10. Clover, as well as the grasses, intended for hay, should be mowed when in bloom.

11. Sandy lands can be most effectually improved by clay. When such lands require liming or marling, the lime or marl is most beneficially applied when made into composts with clay. In slacking lime, salt brine is better than water.

12. The chopping or grinding of grain, to be fed to stock, operates as a saving of at least twenty-five per cent.

13. Draining of wet lands and marshes adds to their value, by making them to produce more, and by improving the health of neighborhoods.

14. To manure or lime wet lands, is to throw manure, lime, and labor away.

15. Shallow ploughing operates to impoverish the soil, while it decreases production.

16. By stabling and shedding stock through the winter, a saving of one-fourth the food may be effected: that is, one-fourth less food will answer than when the stock may be exposed to the inclemencies of the weather.

17. A bushel of plaster per acre, sown broadcast over clover, will add one hundred per cent. to its product.

18. Periodical applications of ashes tend to keep up the integrity of soils, by supplying most, if not all, of the organic substances.

19. Thorough preparation of land is absolutely necessary to the successful and luxuriant growth of crops.

20. Abundant crops cannot be grown for a succession of years, unless care be taken to provide an equivalent for the substances carried off the land in the products grown thereon.

21. Young stock should be moderately fed with grain in winter, and receive generous supplies of long provenders, it being essential to keep them in a fair condition, in order that the formation of muscle, bones, etc., may be encouraged and continuously carried on.

PROFITS OF FARMING.

Although farming does not lead to the rapid accumulation of wealth, yet it yields a competence to the industrious and frugal, and is the most independent calling in life. The items of profit, though apparently small in themselves, amount, when those for the year are added together, to no inconsiderable sum. And a farmer's expenditures in money being less than is required by other kinds of business—nearly every article for the support of his family being raised on his farm—his balance-sheet shows a healthy and thriving business at the close of the year. Commerce and manufactures are the bases of large cities, and the sources of rapid accumulation of wealth, the legitimate products of which are luxury and excess. These crept into the Roman Republic, and undermined the very foundations on which it was established—industry, morality, and virtue. Licentiousness and vice of every kind followed in their turn, corrupting the better portion of her people, and in due time did their work of destruction. Thus terminated the existence of one of the most magnificent political structures of which the old world could boast.

FRUITS.

The greatest error in country life is the *putting off* system of planting—the hurry of spring days delays it till the fall. *Time* never procrastinates; and, when the season is again at hand, the same delay and apology are again employed. We put it off till another year, which soon rolls round, and we again use another subterfuge, and pass it off because we cannot get or purchase trees with the fruit hanging ripe and luscious. Plant now the best you can get; and, if you cannot beg or buy trees, sow and plant seeds; if there is no orchard room, plant along every fence apples and grape-vines alternately, twenty feet from plant to plant; use the best soil you have or can procure; dig the holes eighteen inches deep, and three to five feet wide; spread, after planting, a few forkfuls of manure or litter over the surface round the tree—it is both a protector in dry weather and a nourisher in growth. A handful of guano, mixed with a shovelful of leached wood ashes, spread over the surface, under the litter, is very stimulating. Plant pear-trees in or adjoining the garden, or prepare a small orchard for them. Plant fruit-trees, and you will have a great chance of reaping the harvest. Cover the barns with grape-vines and apricots; surround the pig-pen with plum-trees, and plant the cherry-trees on a dry, deep soil; select early and late sorts, which gives a longer period of *pie-time*. Plant strawberries in rich, deep soil, well manured, alternately one foot and two feet from row to row, giving a space to walk amongst and dress them when required; nine inches from plant to plant in the row will do; plant for the first season a row of cabbages in the wide spaces.

If you have old apple or pear-trees of worthless sorts, thin out the old spray-wood and small shoots, and graft on fine sorts; a good kind requires no more care nor culture than a crab-apple or choke-pear, with the difference of four hundred per cent. in your favor. Graft plums and bud cherries.

Marrowfat Beans.—This is the name given to a new variety of beans in Connecticut—that is, new there, as it appears they are cultivated in Tennessee. It is claimed that this bean is of a higher flavor, is more prolific, and of a larger size than the common white or field beans.

Webster on Boiling Potatoes.—There are many recipes extant for cooking potatoes, but none of so high authority as the following, which is found among the published letters of Daniel Webster :

[*To Fletcher Webster*].

GREEN HARBOR, May, 1849.

DEAR FLETCHER : I send you a quarter of lamb to roast, and, if not too rainy, will come to dine with you.

Potatoes. Let these potatoes be peeled early, and thrown into a basin of cold water till time to cook them. Let them be boiled in a good deal of water. When done, pour off all the water, shake up the potatoes a little, hang on the pot again, and let the potatoes dry two or three minutes, and then bring them to table. I remember that, when we heard Hannah Curtis shaking her pot, we knew that dinner was coming.

I should be glad to know what Rev. Mr. Stuart says. D. W.

To Make Oyster Loaves.—Take small French rasps (or you may make little round loaves), make a round hole in the top, scrape out all the crumbs ; them put your oysters into a tossing-pan, with the liquor and crumbs that came out of your rasps or loaves, and a good lump of butter ; stew them together five or six minutes, then put in a spoonful of good cream, fill your rasps or loaves, lay the bit of crust carefully on again, set them into the oven to crisp. Three are enough for a side-dish.

Horse Radish.—This is a valuable and wholesome condiment or sauce with meats. It grows from the cutting of the root, as well as from tops. To have fine roots, it should be planted deep in rich mellow ground, and stand two years. For winter use it may be taken up in the fall, and packed in the cellar in earth, like other roots. A few feet of ground will suffice for it, and to this it should be confined.

To Make Yeast.—Take two middling-sized potatoes, mash and add a pint of boiling water and two tablespoons full of brown sugar. One pint of hot water should be applied to every half pint of the compound. Hot water is better in warm weather. This yeast being made without flour will keep longer and better than any other.

Soup.—An economical and excellent soup for a good number of mouths may be made as follows : Take an oxhead well cleaned ; 2 pecks of potatoes ; $\frac{1}{4}$ peck of onions ; 1 oz. of pepper ; $\frac{3}{4}$ lb. of salt. Boil the above ingredients in eleven gallons of water over a slow fire till reduced to seven and a half gallons, and a most excellent soup will be furnished for the use of your family and laborers.

Ginger Snaps.—Melt a quarter of a pound of butter, the same quantity of lard ; mix them with a quarter of a pound of brown sugar, a pint of molasses, a couple of tablespoonfuls of ginger, and a quart of flour. Dissolve two teaspoonfuls of saleratus in a wine glass of milk, and strain into the cake ; add sufficient flour to enable you to roll it out very thin, cut it into small cakes, and bake them in a slow oven.

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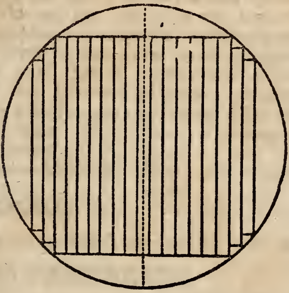

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